Living STEEL™

High-Tech Role Playing System

In 2180 Imperial Guard forces on Getra were overrun. The last transmission from Getra:

"Send Help. . . . .We're being overrun. . . . ."
"We're being hit by. . . . .Living Steel!"

Mankind's destiny was forever changed.

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High-Tech Role Playing System

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INTRODUCTION

Living Steel is a complete high-tech role-playing system. The spiral bound rule book contains all the role-playing information for character generation, skills, training, background, the world, and adventures. It provides a fresh, new look at the character and how he interacts in the game world; providing all that is necessary to develop well rounded, real characters and the world they live in.

Included is a unique and revolutionary combat system. A system which does away with the concept of "Hit Points" and brings you realistic, intense man-on-man action. Combined with the **High-Tech Weapon Supplement**, all the weapon and armor data required for ultra high-tech combat is provided.

To get started, first read the **Living Steel** role-playing book and set up a character. This will acquaint you with the world of Rhand, the character, and how the character interacts with the game world. Next read the Combat System of Chapters 7 and 8. Once you are familiar with the combat system, look at the **High-Tech Weapon Supplement.** Contained therein is all the weapon and armor data required for high-tech action. This is quite a bit of material, but the realism and action is well worth the effort. It is a system which will grow with the player. A self consistent system guaranteed to open new levels of realism and excitement.

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STATUS REPORT

In the year 2349 the planet Rhand suffered a single massive attack by an alien race.

By a dimly understood process termed incursion, the invader entered the planet's system systematically crippling and destroying its industrial capacity. The invader smashed power stations, interrupted communication lines, and took out factories, businesses, and warehouses. They destroyed the small starfleet garrisoned there and crippled the planet's teleporting satellites. Simultaneously the invader released combat teams, tons of armaments, and a particularly vicious virus near and around the planet's populated areas.

Yet before the invasion was completed, the alien's craft was mysteriously and suddenly destroyed. The bulk of the intended damage was done however. Within a few short days, the planet's industrial capacity was crippled and its social structure utterly shattered. The majority of the population was infected by the virus which rendered them permanently sociopathic in thinking and behavior. The remaining populace found themselves faced with the seemingly hopeless task of remaining alive in a world thrown into chaos.

Yet hope and help did exist for these people, and it came from an unknown and unexpected source.

Two months after the Spectral™ attack, one of the damaged teleporter satellites completed its autonomous self repair functions. Simultaneously a group of heavily armed and specially trained men were awakened from a century long sleep. The battle for Rhand had just begun, yet it was a battle whose seeds were sewn one hundred and fifty years ago.

BACKGROUND AND HISTORY

The year is 2349 and mankind has conquered the stars. He has built an interstellar empire, perfected faster than light drive, and has access to almost unlimited electrical power. Yet with all these advantages, his social system has degenerated to a stagnant caste society. A society separating people into three hereditary classes; the Starcaste, the Landcaste, and the Bondsmen. The Starcaste maintain a monopoly on advanced technology. This monopoly, and the military superiority it ensures, guarantees their position. The Landcaste are supported by the Starcaste, and manage and regulate the lives of the Bondsmen. The Bondsmen are the little people, the workers who support this mighty Starguild empire. Their lives are ones of work, struggle, and little hope.

Yet, the galaxy was not always a stagnant tool of the Starguild and its caste system. Once, long ago, there was a kingdom. A kingdom called the Seven Worlds™. This kingdom is now centuries dead, but it was the heart of man's greatest conflict. Not a conflict over real estate, but one of the spirit.

For decades, the Seven Worlds fought the Starguild. Rebels and free spirits throughout known space rallied there to do battle with the Starcaste system, for in those days, the Starcaste system was not entrenched. Its stifling caste society not yet the norm. The Seven Worlds became the stage for man's greatest conflicts. These conflicts were more than a battle for a system, they were a battle of will.

The people of the Seven Worlds had a spirit which separated them from the rest of the Starguild. But even these free spirits could not stand against the Starguild empire. In 2194 the Seven Worlds was defeated, the last desperate actions taking place on the worlds of Alpha and Hryken.

Following their victory, the Starguild rebuilt the Seven Worlds. Importing Bondsmen, exterminating rebels and undesirable elements, the Seven Worlds was rebuilt as a model to the Starcaste system. Over time this repressive system suffocated the free spirit of the Seven Worlds. Only then was the Starcaste system secure. Secure and at the heights of its power when mankind's newest and most deadly enemy, the Spectrals attacked.

The Spectral attack shattered the Starguild. Never before had an enemy of such power attacked human space. An enemy bent on genocide. Against this opponent the Starguild crumbled, and in their disarray they never noticed the proceedings on the remote and tactically useless planet Rhand.

On Rhand, Seven World forces were again released. Released into mankind's Apocalypse, a time for change, a time of turmoil. In this devastation lay the chance to begin anew, to build a better way.

PREFACE

"Greetings Jason."

At the sound Jason woke, his mind clouded, his head aching. Startled to his senses his body never flexed a muscle. His reflexes and control betrayed him as a Starmarine, a man trained in the use of Power Armor. Individually armored combat troops the match for any light tank of the 20th century. Instinctively Jason knew he was still in dress. Air pressure, servos, all green. Instinctively he commanded maximum power shutdown to gave his passive sensors maximum sensitivity.

Machinery humming in the distance. Gravity 1.16 standards! This was not Alpha, nor was it a ship under drive. Where was he? Flat on his back, room lit by diffuse overhead light. He was in an open shipping container, its liquid filled packing cushions deflated and hanging in folds from the walls. Jason surveyed his weapon status. Arming lights green, Battlepack fully charged.

"Greetings Jason."

The voice was his Bicomp, target designator, decoder, and processor for his suit's complex functions. It was waking him, standard procedure. Why did my mind panic at the greeting I've heard thousands of mornings wondered Jason. Perhaps the dream. No it was no dream; Ambush; heavy weapon fire; chaf eject; boost power; Pain!

"Greetings Jason, welcome to Rhand."

Jason remained frozen. It had been fifteen seconds since he first woke. Jason cleared his mind, drove out speculation, and focused on his sensors. Nothing new. No life forms. Atmosphere good, abundant carbon dioxide, movement perhaps 10 meters to the right beyond the wall. Jason commanded active sensors. The container he was in was sturdy, made to handle Power Armor. The floor was solid, it would support his weight. Commanding full boost power he rose ready for action.

An empty room. A closed door he could easily break down in front of him. His suit seemed light and swift. He almost overcompensated on his jump out of the container. Jason glanced down still watching the door. The armor was new. Not of any design he had ever seen. Internally it was identical to his 7SPA7, but externally it was magnificent, Jason's eye took in the subtle design features which indicated generations of field testing.

"Status green all functions. Bicomp to brief you." the voice sounded again in Jason's ear.

"Chip run ID image C." Jason commanded as he placed the lettering and logo boldly painted on the door into his central view screen.

"By Chip I assume you mean me." said the voice now taking on a pleasant female tone. "I am your Bicomp9. You are lucky to have a unit like me. I am generations ahead of the old Bicomp you are familiar with. I deserve more respect than Chip, call me Val."

"ID image C." Jason repeated as he searched for the person behind the voice. Surely no simple Bicomp was addressing him now.

"ORCA: Orbital Remote Commuter Access, Trident trade mark and logo. Registered with Starguild third quarter 2294." replied Val.

The Date. The date must be wrong thought Jason, but before he could inquire, Val continued. "Standard Date 2349. Vykron, Jason C., evacuated from Alpha 3 Standard Date 2194. Wounds critical. Evacuated and held in stasis RQ11. Spinal injuries irreparable, treatment held for medical advances. Refab Scan facility 43A39 Standard Date 2345. Transported to Starguild holding Rhand, Argent sector, Standard Date 2347."

"Stop." whispered Jason. Confused and confined Jason sought action. Ignoring caution, he moved for the door. Instantly he froze. An encoded message was being relayed through electrodes in his brain. His mind automatically and uniquely decoded the signal. It was Golem code, top priority. "The coming of Vir."

"See Jason, I can be trusted." said Val. "I know all. If I were an enemy with that knowledge nothing you could do would save your cause."

Jason knew she spoke the truth. How much did she know? But to know even those four words meant she knew all.

"You have been held for reassignment on Rhand." continued Val. "You are to take place in Operation Seven Swords."

The electrodes in Jason's brain began to receive their special message. "The coming of Vir" was the Golem code preceding a top priority message. Now this message came clear and strong into Jason's mind. "RHAND: APOCALYPSE—PHOENIX."

So it has come to Apocalypse thought Jason. APOCALYPSE was the code indicating the fall of the Seven Worlds. All units to hold or retreat as required. Salvage all personnel, combatants and noncombatants. Prepare to operate independently until help arrives. PHOENIX—Prepare to carry on without help to save the culture and soul of our people for a time when they might rise again.

"Tactical status report Rhand, Argent sector." commanded Jason. He had a mission now. A thousand doubts threatened to confuse him, but he kept focused on his mission, eager for the data that would answer many of his questions.

"There is no time for a complete tactical status report." stated Val. "You must assume command of your operation Team in eighteen minutes. I will prepare you with a short briefing so you can inform them of the situation."

"What operation Team." interrupted Jason. "How do you expect me to take command of an operation team when I don't know anything about this planet or even current weapon technology. I'm not fit for command."

"Not so." said Val. "Your are uniquely and superbly qualified for this task. Your soul carries the ideals and dreams for a better world. Who better to restore the old order. And Rhand is a perfect base on which to start. Rhand is a fertile sparsely populated planet where the tyranny of the Starguild has not been established. Its people are resourceful and free."

"What do you mean free?" asked Jason. "Nobody is free from the Starlords unless they are members of a Free System. You already told me Rhand is a Starguild company holding."

"Was a Starguild company holding." injected Val. "Rhand does not belong to anyone now. The struggle for Rhand has just begun. No Starlords rule the space of Rhand, no legate owns the land. There will be no stardrive entering this system for a long time. During this time you can establish a free planet. Phoenix Jason. That's the important part of this task."

Interesting thought Jason. A planet free from Star tyranny and blackmail by stardrive forces. Free to develop its own destiny rather than a stagnant tool of the galactic guild. "What forces are at my disposal?"

"Niki, Marcel, and Trent are here." replied Val. "I assume you will use them as lieutenants. They are highly qualified. The troops are however untested and disorganized."

Niki, Marcel, and Trent alive! Then others have survived thought Jason. "How many of us made it off Alpha?"

"I only know of the four of you." replied Val. With that she began the briefing. "Rhand, Argent sector, Trident company holding. Primary use, resort planet for Starguild elite. Two months ago Rhand was attacked by Spectral forces. Spectrals are an alien race. The attack was made by one armed jump conveyor. It entered the system undetected and destroyed the small Starfleet stationed here before they could intercept."

"Once in orbit about Rhand, a planetary wide biological attack was made. A behavior psi modifying virus was dispersed which affected approximately 80% of the population. This virus produced permanent wide spectrum violent behavioral patterns termed Viral Induced Sociopathic Response. The conveyor then transported down thousands of weapons as well as dozens of infantry platoons. This infantry captured key facilities such as power generators and launching docks. The invasion was proceeding well for the Spectrals when their ship was destroyed. The reason remains a mystery, but there has been no relief and none is expected. Their forces are now as isolated as yours. Currently the planet is in chaos. The Spectrals and their mercenaries are operating independently. The entire population is on the move, fighting and struggling to survive. The world as a whole is populated by bands of crazed madmen but there are a few pockets of civilization. Small groups of people unaffected by the viral attack. It is your mission to contact, protect, and organize these people.

At your disposal are a limited amount of supplies and the Alpha Teams. The Alpha Teams were the planet's emergency squads before the invasion. Units like paramedics, fire fighters, and repair teams. Most are civilians and are not affiliated with the Starguild or government. They have all been screened and can be trusted.

Rhand's Alpha Teams came from the ORCA teleportation system which operated out of four satellites. These satellites teleported people and equipment anywhere on the planet. To minimize response time, the Emergency Teams were stored in stasis in the satellite's memory banks and upon command delivered as needed anywhere on the planet. The Spectral attack destroyed three of the four satellites and damaged the fourth. The damaged satellite had autonomous self repair capability and was able to regain operations after two months. That occurred about 5 minutes ago. Now some of these Teams are assembled in this facility for you to brief. You must use your command skills to pull them together and help them cope with the situation. They were in stasis before the initial attack and know nothing of the current situation.

"What." blurted Jason assuming Val's prolonged silence meant she was finished. "You expect me to carve out a Holding with civilians." This is ridiculous thought Jason. Then again, Val said some of the Teams were his. Some meant others elsewhere. Other Teams on Rhand. I'm just one cell in the operation. I might never know of any others. Apocalypse required each cell as an independent element. Each cell striving for rebirth, a Phoenix rising from the ashes. In time these cells might reunite. "It's not over then." said Jason.

"Not over Jason." replied Val. "It has just begun."

1

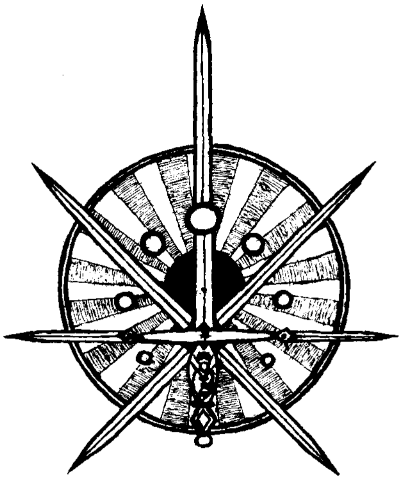
THE CHARACTER

When role-playing, the player finds adventure through the lives of characters, imaginary people represented by a set of numbers which define various abilities. Initially no more than a two dimensional paper figure, with play, the character advances to become a realistic, full-fledged individual. Role-playing provides the player with opportunities to creatively deal with challenges hardly imagined and never encountered in the real world. The character represents the capabilities of a person in the game world, the player provides the emotions and personality that make him complete.

In general, each player generates a single player character, but there is no set limit on the number of characters a player may have. Player characters can be chosen from the ranks of **Ringers, Alpha Team members,** or individuals from the player's own imagination. Many players choose Ringer characters. Ringers are individuals trained in combat and sent to Rhand on a special mission. They are to organize the Alpha Teams into a cohesive society, secure a base of operations, and form an advisory and support staff from which civilization can be rebuilt.

These Ringers are not from Rhand, nor are they from this century. They are unique warriors forged by conflicts which took place over 150 years ago. Conflicts centered around the Seven Worlds; a unique system containing seven habitable planets. The battle for dominance of this system engaged Starguild and Seven World forces for decades. It was a conflict which gave rise to a unique military, the Seven Swords.

Seven Sword units were based on the planet Hryken, center of the Seven World system. Hryken was inhabited decades before its existence became known to the Starguild. Free of Starguild oppression, Hryken thrived, a unique nation in what was becoming a stagnant Starguild galaxy. The initial source of materials and technology which made colonization possible has never been disclosed. This remains one of the greatest mysteries in Starguild history, for by the time the Starguild became aware of the Seven Worlds, it had its own strong and alert Starforce.



"For the good of our people, we lend ourselves to battle."

Gold Targas, Seven Sword Legion

The Ringers are drawn from those Seven World forces. They were members of a legendary civilization. A long lost example of freedom, for in 2194 the Starguild subjugated the peoples of the Seven Worlds. Recolonizing the system with Bondsmen and relocating survivors on the shattered world of Alpha, the Starguild put an end to the free spirit of the Seven Worlds.

But now, in 2349, some of the best of these warriors are on Rhand to give birth to the Phoenix. "Save the ideals and dreams of our people for better times" were their last orders. Little did they realize this would occur 150 years later on a planet far removed from their homeworlds.

To assist the Ringers and form the backbone of operations are the **Alpha Teams.** The Alpha Teams were Rhand's mobile emergency teams, units such as paramedics, fire fighters, and police. They were held in stasis within the memory banks of the ORCA teleporting satellites ready for immediate transport. These teams survived the initial Spectral invasion, unaware of the battle which followed. In the initial attack three of the four orbital satellites were destroyed and the fourth damaged. In the months that followed, the damaged satellite's self repair and maintenance system repaired the damage and teleported its Alpha Teams once again to Rhand's surface. There they found their world in chaos. There they met the Ringers and began their almost impossible task, the reclamation of a planet gone mad.

1.1

CHARACTERISTICS

To make role-playing interesting, a character should be able to do many of the things a real person can do. The character is defined by numbers called "Characteristics" which represent human traits and capabilities. In Rhand these numbers are grouped into five **Primary** and six **Secondary Characteristics** which represent physical, mental, and emotional attributes. In addition to these innate traits, the character is enhanced by a variety of acquired skills and abilities, providing the framework of a truly unique individual.

Figure 1 is a sample character sheet showing the characteristics, skills, and values for a Ringer character. A blank character sheet has been provided at the end of the **Data Table Supplement.**

Primary Characteristics

The first five characteristics located down the left-hand column of the character sheet are the Primary Characteristics. The Primary Characteristics represent the critical attributes of the character. The value of each generally varies from 3-18. The larger the value, the greater the character's prowess as shown in the following table. Each of these characteristics are described below.

Characteristic	
18	Exceptional
16	Excellent
14	Good
12	Above Average
10	Average
8	Below Average
6	Poor
3	Extremely Poor

Strength (STR): Physical strength as it affects overall physical performance. An unskilled character who has a STR = 10 can dead lift about 205 lb and lift 95 lb overhead, one whose STR = 14 can dead lift 245 lb and lift 115 lb overhead, and one whose STR = 18 can dead lift 405 lb and lift 185 lb overhead.

Intelligence (INT): Mental dexterity and the capacity for reasoning and understanding. Intelligence is very important in determining how rapidly a character learns and influences the speed with which he can make decisions. As such it is a factor in determining the character's overall combat effectiveness.

Will (WILL): Resolve and willpower influencing courage in the face of danger, resistance to the pain of wounds, and the ability to concentrate. As such it affects a character's morale under fire and ability to learn.

Health (HLT): Physical health and the ability to recover from wounds or hardship.

Agility (AGI): Physical coordination and speed affecting maneuverability and overall physical capabilities. A character must have an AGI = 16 to be partially ambidextrous and AGI 17 to be fully ambidextrous.

Name: Trent

Age: 37

Special:

Exceptional Merit: 2

Characteristics

Strength	STR	16
Intelligence	INT	12
Will	WIL	12
Health	HLT	12
Agility	AGI	13
Charisma	CHR	14
Leadership	LDR	15
Motivation	MOT	12
Size	SIZE	12
Teaching	TCH	13
Telep Sens.	TS	10
Base Speed		2.5
Maximum Speed	MS	6
INT Skill Factor	ISF	26
Combat Actions	CA	8
Knockout Value	KV	48
Learning Roll	LR	16

Equipment

	PF	Weight
Combat Suit	30	29.3
Level 2		
Helm	20	
Visor	10	
Body	30	
Limbs	2	
FMP8 Pistol		2.8
Spare Magazine (2)		.6
Holster		.4
Encumbrance =		33.1

General Skills		SL
Skill Type A	4+1+1+1+1	
1 Gun Combat		8
Skill Type B	3+1+1	
2 Balance/Footwork		5
3 Fall Recovery		5
4 Hand - Hand Combat		5
5 Unarmed H-H Combat		5
Skill Type C	3+1+1+1	
6 Climbing		6
7 Scouting		6
8 Survival Skills		6
9 Traps/Spotting		6
Skill Type D	0+1	
10 Demolitions		1
11 Espionage		1
12 Infiltration		1
Skill Type E	1+1+1	
13 Con/Acting		3
14 Diplomacy		3
15 Perception		3
Skill Type F	1+1	
16 Driving		2
Skill Type G	1+1	
17 Medical Aid		2

Qualified Skills	
Lase Weapons	YES
Explosive Weapons	YES
Heavy Weapons	YES
Power Armor	NO
Grav Vehicles	NO

Weapon	Physical Data	Aim Time AC	Aim Time ALM	Ballisitic Data	Range in hexes 10	20	40	70	100	200
FMP8	L 8	1	−4	SD RID	17	16	14			
	W 2.8	2	3	DC	2	2	2			
Machine		3	4							
Pistol	RT 5	4	5							
	ROF *12	5	6							
		6	7							
	Cap 60									
	AW .3									
	Mag									
	SAB 1			MA	.2	.3	.6			

Figure 1 Sample Character Sheet

Secondary Characteristics

Secondary Characteristics round out the personal traits of the character and are used for social and personal interactions in the game world. Each is described below.

Charisma (CHR): Personal charm and ability to interact with others. It is composed of physical appearance and personality and is used in such things as gaining employment, making friends, and leading people.

Leadership (LDR): A mixture of the character's 'presence' and his native ability to command and lead.

Motivation (MOT): Long term determination or persistence to achieve some end. It may be thought of as a desire to pursue a goal that may not yield immediate results. WILL, by comparison, is concerned with immediate results.

Size (SIZE): Physical height, the character's height in inches is Size + 54 for a female and Size + 58 for a male.

Teaching (TCH): Teaching and instruction ability; how well the character can get ideas and concepts across to a student. This characteristic also reflects the character's patience, since teaching requires much of this virtue.

Telepathic Sensitivity (TS): Perceptiveness and latent telepathic abilities. The greater the TS, the greater the ability to read the emotions and truthfulness of others.

1.2

CHARACTERISTIC GENERATION

Primary Characteristics are assigned from the **Characteristic Point Total.** The Characteristic Point Total is the sum of four six-sided dice plus 48. The player divides these points among the five Primary Characteristics using the following rules.

1. Each characteristic must have a minimum value of 3.
2. The number of Points needed to attain a given value in one characteristic is found on the table below.

		Value of Characteristics								
Characteristic	**3 to 12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**
STR and AGI	equal	13	14	15	16	18	21	25	30	36
INT, WILL, HLT	equal		13		14	15	17	19	22	25

3. The total Points used must be equal to the Characteristic Point Total.

Example:

At the start of play a player rolls up a character, Trent. He rolls four six-sided dice with these results: 5, 5, 4, and 3. Adding these to 48 gives a Characteristic Point Total of 65. The player wants Trent to be a balanced character, so assigns 16 to STR, 12 to INT, 12 to WILL, 12 to HLT, and 13 to AGI. The player could likewise have designed Trent with STR 9, INT 18 (costing 17 points), WILL 14, HLT 12, and AGI 14.

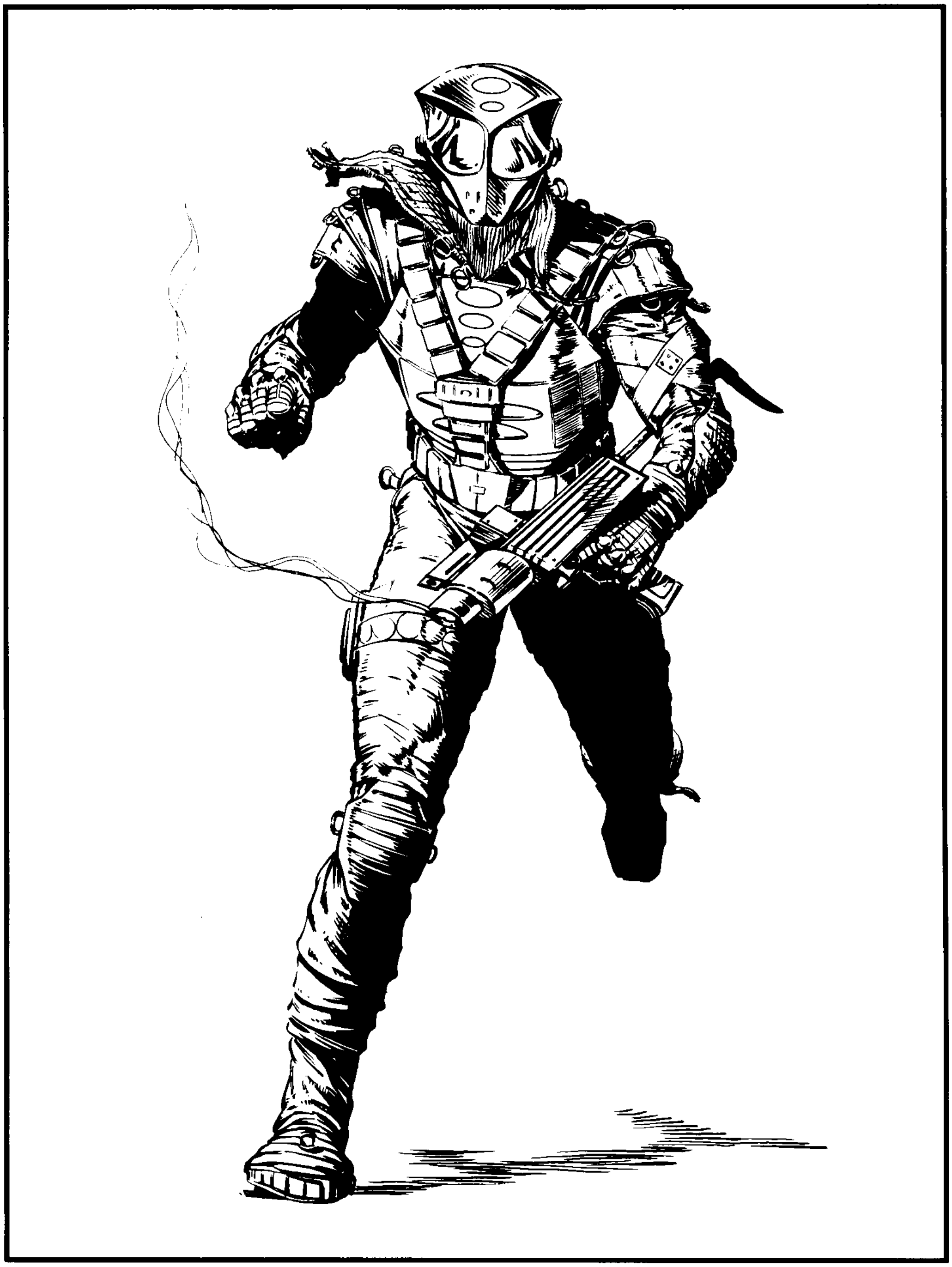
Quest and Hero Characters (optional)

The preceding rules are for generating typical player characters. If special quest or hero characters are desired, we suggest using a CPT of 54 plus four six-sided dice for quest characters and 60 plus four six-sided dice for heroes.

Secondary Characteristics

To find the value of a Secondary Characteristic, the player sums the roll of three six-sided dice. A roll of 6, 4, and 4 on three six-sided dice would give a value of 14. Each Secondary Characteristic is rolled separately.

An optional rule for generating secondary characteristics is to allow the player to roll a six-sided dice and use the result to modify the value(s) of his secondary characteristics. As an example, consider a character who rolls a MOT 7 and TS 12. If the player rolls a 4 for his six-sided roll, he could add all four points to his MOT and adjust its value to 11 or could add 3 to MOT and 1 to TS to give MOT 10 and TS 13. The value of a characteristic cannot be raised above 18 by the addition of these points.



Trent equipped for a Spinward Mission

"On the Seven Worlds, deep down I knew we could never defeat the empire. We fought to postpone an inevitable loss. But things are different now. I'm fighting for the first time knowing we can win."

Trent

1.3

CHARACTER BACKGROUNDS

Once the characteristics of each character have been determined the next step is to determine their age, background, and initial skills.

First the background and **initial skills** of Ringer characters will be determined. These skills are detailed in Chapter 2 and are listed down the right-hand side of the character sheet. A character's skill is measured by his **Skill Level**. This Skill Level varies from 0 to 20. The greater the Skill Level, the greater his expertise.

A character may also be qualified in any of the five **Qualified Skills** listed on the bottom right side of the character sheet. Qualified Skills indicate the character is capable of using that piece of equipment and are simple Yes or No values.

Note that there are 17 skills divided into 7 groups, or **Skill Types**. Now refer to the **Ringer Background Table (1A)** located in the **Data Table Supplement**. That table has 7 columns labeled Skill Types. The 7 columns correspond to the 7 groups of skills on the character sheet.

Ringer Background

To determine the Ringer's background and age, enter **Table 1A** with a 000-999 roll to find where he began his military career. If this roll is less than or equal to a 500, his **age** is a 1-20 random roll + 30. If the roll is greater than 500, his age is a 1-10 random roll + 20. Determine his age and record it on the character sheet. Now examine **Table 1A**. To the right of the 000-999 number rolled are asterisked (*) values under the seven Skill Types. Record these values on the character sheet for each Skill Type as shown on **Figure 1**. This is the initial Skill Level of each skill listed under that Skill Type.

"Of course we like him best, we met him first."
D.T.

Next, refer to the Qualified Skill section of **Table 1A**. Under each of Qualified Skill is a 00-99 number. For each, roll a 00-99 number. If the roll is less than or equal to the number in the table, the character has been qualified with that piece of equipment. Record qualification on the lower right side of the character sheet.

The Ringer's initial training and skills have now been determined. His military career prior to finding his way to Rhand will now be found. This includes the events, campaigns, and actions in which he took part. These campaigns are detailed in the Historical Time Line of Section 6.4.

To determine the Ringer's military career, enter **Column 1** of **Table 1B** with a 00-99 roll. Move right from this entry and make a 00-99 roll for each Skill Type and Qualified Skill with a number entry. Each time the 00-99 roll is less than or equal to the entry, he earns 1 Skill Level in that Skill Type or receives qualification in that Qualified Skill. This represents experience gained during his military career. Record each additional Skill Level and Qualified Skill earned on the character sheet. An asterisked (*) entry gives the number of Skill Levels earned; no 00-99 roll is required.

The Ringer enters **Table 1B** with a 00-99 roll a minimum of four times. If, after entering **Table 1B** four times, he has not rolled an **Exceptional Merit entry**, his background is complete. Mark the top of the character sheet as "**Special**" in the entry provided. His being Special gives him extra abilities in the optional rules of Section 1.7.

If the Ringer rolls an Exceptional Merit entry, it is recorded on the top of the character sheet. This indicates he was distinguished by valorous service far beyond the call of duty and has accepted service with Seven World Forces (if not already a member). Once an Exceptional Merit roll is made, continue to enter **Column 2** of **Table 1B** with 00-99 rolls until an entry preceded by an asterisk (*) is rolled. With each entry, determine the number of Skill Levels gained and record them on the character sheet. If a second Exceptional Merit is rolled, record it on the character sheet. Once an (*) entry is rolled, the character continues to enter **Table 1B** using **Column 3**. This represents his service with Seven World forces before being extricated and saved for use on Rhand. When an entry preceded by an asterisk is rolled, his background is finished. This was the last action in which he took part. Since then, he has been dead or missing in action.

The Ringer's Initial Skill Levels in each of the seven Skill Types has now been determined. His initial Skill Level of each skill listed under those Skill Types is equal to this Initial Skill Level.

Ringers with Exceptional Merit have special abilities detailed in the optional rules of Section 1.7.

Example:

We will find the age and Initial Skill Level in Skill Type A and the Qualified Skill of Heavy Weapons for Trent, a Ringer character. Determining the Initial Skills Levels of the other six Skill Types would be done at the same time using the same procedure, but has not been detailed for clarity.

Entering Table 1A with a roll of 017, we find Trent was initially trained as a member of a Subcon Starforce. His Skill Type A Skill Level is 4 and he has a 60% chance of learning to operate Heavy Weapons. Trent rolls a 96 for this Qualified Skill, so he was not trained with Heavy Weapons. Referring to the sample character sheet of Figure 1, we see the Skill Level of 4 for Skill Type A recorded. Trent rolls a 7 for his 1-20 roll, so he is 7 + 30 = 37 years old.

Now Table 1B is entered. Trent rolls a 30, indicating his first assignment was with a Counter Espionage Team. In this assignment he had a 30% chance of gaining one Skill Level in Skill Type A. He rolls a 52 and does not get the Skill Level bonus. Looking at the Qualified Skill columns we see he had a 5% chance of being trained to use Heavy Weapons. Trent rolls a 03 and receives training and qualification. This is recorded on the character sheet, and, from that point, this entry can be ignored as he is already qualified.

Trent's second entry roll into Table 1B is a 62, Exceptional Merit. Since his initial training was with a Subcon Starforce, he was not initially a member of the Seven Worlds. This Exceptional Merit entry indicates he has defected from the Starguild and taken service with Seven World Forces. He adds one to his Skill Level in Skill Type A (Figure 1) and records his Exceptional Merit on the character sheet. He now continues to roll on Table 1B using Column 2. Had he not rolled Exceptional Merit he would enter Table 1B two more times. If neither of those rolls were Exceptional Merit, he would be done with character background and would mark his character sheet as Special.

Trent's next roll into Table 1B is a 01, Exceptional Merit. He gains another Skill Level in Skill Type A and records his 2nd Exceptional Merit on the character sheet. Since this entry was preceded by an (*), his next roll into Table 1B will be on Column 3. This roll is a 57, Dragoncrest War—Alpha Campaign. He has a 70% chance of gaining another Skill Level in Skill Type A. He rolls a 35 and gains this bonus.

On the next roll, Trent rolls a 78, Starguild War—Alpha Rear Guard. He gains another Skill Level in Skill Type A. Since this entry is preceded by an (*), and he is already on Column 3, his background is complete.

Trent's Skill Level in each Skill Type have now been found as well as his Qualified Skills. His Skill Level in each skill listed under a Skill Type is equal to his Initial Skill Level in that Skill Type.

"All the rest are useless scrap. Now there's Living Steel."

Living Steel was the Seven World's code name for Power Armor.

Alpha Team Characters

Assisting the Ringers and forming the backbone of operations are the Alpha Team characters. To determine an Alpha Team character's background, first find his **age** by adding 20 to the roll of a ten-sided die. Record his age on the character sheet. Next, refer to **Table 2A.** Enter this table with a 00-99 roll to determine which Alpha Team he was in. To the right are columns labeled 1 to 17, and five columns under Qualified Skills. Each of the numbered columns corresponds to the skill of the same number on the character sheet. Go across this table making a 00-99 roll for each column with a number entry. If the roll is less than or equal to the entry, the character has been trained in that skill and should roll a six-sided die to determine his Initial Skill Level. If greater than the entry is rolled, the character has an Initial Skill Level of zero in that skill. Entries preceded by an asterisk (*) indicate training of that Skill Level and no roll is required. A 00-99 roll for each Qualified Skill is also made. If the roll is less than or equal to the entry, the character has been qualified in that Qualified Skill.

Many of the Alpha Team members have no combat skill. Players have an option of running Alpha members with combat training. To use this option, add 90 to a 0-9 roll when entering Table 2A to find the character's background.

"The emotions of that first day were hard to describe. There was joy in the reunion of old comrades, mixed with the pain of what we all lost. But most of all, there was hope for a brighter future."

Jason

Ringer Reunion

1.4

CHARACTER EQUIPMENT

Initially, characters are equipped only with armor, weapons, and basic equipment. Other equipment must be picked up in the course of play.

Each character is issued a Combat Suit with their choice of armor panels. Characters qualified with Power Armor will receive a set of Heavy Combat Power Armor (HCPA) in addition to the Combat Suit.

For weaponry, each character gets his choice of one weapon from **Table 4D** under **Arms Class 4.** Only character's qualified with Lase weapons will be issued Lase rifles. Basic equipment issued for a mission includes:

framepack (2.0 lb)
two canteens (5.0 lb)
mess kit (.3 lb)
two loads of ammunition
twenty days rations (6 lb)
bed roll (4.5 lb)
entrenching/utility tool (2.0 lb)

GENERATING A CHARACTER

Once the character's characteristics, initial skills, and equipment have been determined, the other values on the character sheet can be filled in using the following step-by-step procedure. General explanation of these values are given here; the full details are found in the chapters that follow. Most are used by the Combat System of Chapter 7.

Step 1 Encumbrance

The Encumbrance is the total weight of armor, clothing, weapons, and equipment carried into combat. The greater the Encumbrance, the slower the character. Backpacks and other noncombat equipment are generally dropped before entering combat, and thus, are not included in this weight.

To find the Encumbrance, record the weights of all equipment carried into combat on the character sheet. The sum of these weights (in lbs) is the Encumbrance. Record this sum on the character sheet. If armor is worn, record its **Protection Factor (PF)** for each body location in the space provided. The PF measures armor protection; the larger the PF, the greater the protection.

Record equipment weights and armor Protection Factors (PF)
Encumbrance = Total weight carried into combat

Step 2 Maximum Speed

Next, find the character's Maximum Speed. This depends on his Strength, Agility, and Encumbrance and is his maximum running speed.

To find the Maximum Speed, first determine the character's **Base Speed** by cross-indexing his Strength (STR) characteristic (Section 1.2) and Encumbrance (Step 1) on the **Base Speed Table (3A).** Record the Base Speed on the character sheet. As an example, a character with Strength 16 and an Encumbrance of 33 pounds has a Base Speed of 2.5. Characters in Power Armor use an Encumbrance of 10 when determining their Base Speed.

Now, cross-index the Base Speed with his Agility (AGI) characteristic (Section 1.2) on the **Maximum Speed Table (3B)** to find his Maximum Speed. As an example, a character with Agility 13 and Base Speed of 2.5 has a Maximum Speed of 6.

Base Speed = Cross-index Strength (Section 1.2) and Encumbrance (Step 1) on Table 3A
Maximum Speed = Cross-index Agility (Section 1.2) and Base Speed on Table 3B

> **"As far as I'm concerned, anybody slower than me is the rearguard."**
> Gill the Treacherous

Step 3 Skill Accuracy Level

The character's Skill Accuracy Level is now determined. This measures his skill with weapons and knowledge of small arms tactics. The greater the Skill Accuracy Level, the greater his expertise. It is found opposite the Gun Combat Skill Level on **Table 3C** and should be recorded on the character sheet.

Skill Accuracy Level = Found on Table 3C opposite the Gun Combat Skill Level (Section 1.3)

Step 4 Intelligence Skill Factor

Next, the Intelligence Skill Factor is established. This is the sum of the Intelligence characteristic and the Skill Accuracy Level (Step 3). Record it on the character sheet.

Intelligence Skill Factor = Intelligence Characteristic + Skill Accuracy Level (Step 3)

"A live friend is worth a hundred dead enemies."

Jason

Step 5 Combat Actions

The character's Combat Actions measure the speed with which he can maneuver and use his weapon. Both ability and Encumbrance are factors in determining the Combat Actions.

The time required to perform any act, such as load a weapon or open a door, is measured in Action Counts. These Action Counts are the cost, in time, to perform the act. The character's Combat Actions are the number of Action Counts he can perform each turn.

To find the Combat Actions, go to the **Combat Actions Table (3D)** and cross-index the Maximum Speed (Step 2) with the Intelligence Skill Factor (Step 4). Record the Combat Actions on the character sheet. It may change when the character advances in Gun Combat Skill Level or changes his Encumbrance.

Combat Actions = Cross-index Maximum Speed (Step 2) and Intelligence Skill Factor (Step 4) on Table 3D

Step 6 Knockout Value

Next, the Knockout Value is determined and recorded. The larger the Knockout Value, the greater the ability to ignore the pain of wounds. The Knockout Value is one half of the WILL characteristic times the Gun Combat Skill Level (rounded off).

Knockout Value = .5 × WILL (Section 1.2) × Gun Combat Skill Level (Section 1.3)

Step 7 Learning Roll

The Learning Roll is a 00-99 number based on characteristics that determines the rate at which the character learns (Section 2.3). To find the Learning Roll total the INT + WILL + AGI + MOT + MOT + TS and enter the **Learning Roll Table (3E).**

Learning Roll = Found on Table 3E opposite the sum of the INT + WILL + AGI + MOT + MOT + TS characteristics

Step 8 Weapon Data

Weapon data is found in the **High-Tech Weapon Data Supplement** and is recorded on the character sheet for each weapon used. The Weapon Data Supplement contains some data which is not used by this system. Only the values used by the combat system of Chapter 7 are mentioned here. The other values are used by the **Phoenix Command Combat System** and need not be considered here. Weapon characteristics important to this system are described below. These values should be recorded on the character sheet for future reference.

Length (L): The folded and deployed weapon length in inches.

Weight (W): The loaded weapon weight in pounds. It does not include a holster or sling.

Reload Time (RT): The time, in Action Counts, to fully reload the weapon.

Rate Of Fire (ROF): The time, in Action Counts, required to chamber a round from the weapon's magazine.

An asterisk (*) or (**) indicates a self-loading action in which a round is chambered automatically after each shot fired. With this type of weapon, a round is always ready for fire until the magazine is empty.

A number following an * or ** indicates the weapon is capable of fully automatic fire and gives the number of rounds fired per half second burst. Weapons marked with a *V or **V are capable of variable rates of fully automatic weapon fire.

Weapons with no Rate Of Fire entry have no magazine. For these weapons, the time to prepare a shot is given by the Reload Time.

Ammunition Capacity (Cap): The maximum number of rounds carried in the weapon's magazine.

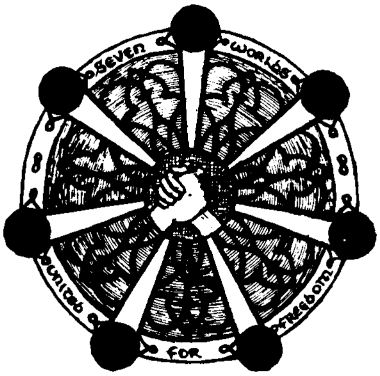
Ammunition Weight (AW) and Feed Device: The weight, in pounds, per magazine (Mag), individual round (Rnd), or power pack (Pck).

Sustained Automatic Burst (SAB): The measure of weapon accuracy during long bursts of automatic fire.

Aim Time ALM (Accuracy Level Modifier): Weapon accuracy greatly depends on the amount of time spent aiming. The Aim Time ALM measures this. The greater the Aim Time ALM, the greater the accuracy.

The weapon data tables contain **Aim Time Modifiers (Aim Time Mods)** for a number of **Aim Times.** These Aim Times typically range from 1 to 12 Action Counts (AC). The Aim Time Mod to the right of each Aim Time measures the weapon's inherent accuracy and speed of aim. The Skill Accuracy Level (Step 3) measures the shooter's accuracy. Combined, the Aim Time Mod and the Skill Accuracy Level measure overall shooter/weapon accuracy, and are referred to as the Aim Time ALMs. Add the Skill Accuracy Level to each of the weapon's Aim Time Mods and record the sums on the character sheet for each of the weapon's Aim Time AC.

Aim Time ALM = Aim Time Mod (Weapon Data Table)
+ Skill Accuracy Level (Step 3)



Crest of the Seven Worlds

Relative Impact Damage (RID) and Damage Class (DC): The RID measures bullet penetrating power. The DC measures bullet damage capability. The greater the RID and DC, the greater the penetration and damage. On the Weapon Data Table, the RID and DC are given for target ranges 10, 20, 40, 70, 100, 200, 300, 400 and 600 hexes (a hex is two yards across). There are three sets of RID and DC values. Each set is for a different type of ammunition. Record the RID and DC just as they appear on the Weapon Data Table.

Minimum Arc (MA): The minimum number of hexes over which a burst of fully automatic weapon fire must be spread. The greater the weapon's recoil, the greater the Minimum Arc. Record the Minimum Arc for each target range just as it appears on the Weapon Data Table.

Record Weapon Data from Weapon Data Table
Aim Time ALM = Aim Time Mod + Skill Accuracy Level (Step 3)

The character is now ready for play. The rest of this chapter is devoted to the Gamemaster and details how non-player characters may be generated. The general player may continue to Chapter 2: Skills and Actions. This will acquaint you with your character's skills and how he interacts with the game world.

1.6

NON-PLAYER CHARACTERS

This section is a guide for generating non-player characters. It is an aid to the Gamemaster, and can be skipped by the general player.

The **Troops and Enemies Description Table (10)** provides all the data required for common enemies, but there will be times when detail of a person met in the game world is desired. The following steps show how the background and equipment of such people may be determined.

Step 1

First, determine the person's **age** and **Characteristic Modifier (CM)** by a 00-99 roll on the **Non-player Character Age Table (4A).** Generate the STR, AGI, and SIZE characteristics by summing the roll of three six-sided dice and subtracting the CM. Find all other characteristics by summing the roll of three six-sided dice.

Alternatively, the person's characteristics can be generated using the rules of Section 1.2 as if he were a player character.

Step 2

Enter the **Non-player Character Background Table (4B)** with a 000-999 roll to determine his background. That table gives his caste, occupation, and affiliation. Now refer to the **Non-player Character Skill Table (2B)** to find his Initial Skill Levels in each General and Qualified Skill using the rules of Section 1.3 for an Alpha Team character.

Equipment

Once the person's characteristics and skills have been determined, the equipment he carries is found. The type of armor or clothing he has is determined by the roll of a 000-999 number on the **Armor Generation Table (4C)** under the **Arms Class** given in Table 4B.

The weapon he carries is found with a 00-99 roll on the **Weapon Generation Table (4D)** under the **Arms Class** of **Table 4B.** He will have two magazines or full loads of ammunition for his weapon. Ammunition type can be a mix of those available in the **High-Tech Weapon Supplement.**

Other equipment is found on the **Equipment Table (8).** This equipment is divided into six **Classes 1 to 6** and four categories: Personal, Weapon Accessories, General, and Major. The six Classes measure how often such equipment is found. Class 1 equipment is the most common, while Class 6 the rarest. Examining the **Equipment Table (8)** you will find the weight of each item to the left of each entry. To the far left is a 00-99 number used to randomly generate what items a person carries.

To determine the Class, category, and number of items owned, enter the **Non-Player Character Equipment Table (4F).** That table gives the equipment a person might have opposite his Gun Combat Skill Level. To generate these items, enter Table 8 with a 00-99 roll for each item under the appropriate Class and category.

Once the Non-Player Character has been equipped, the standard rules of Section 1.5 can be used to fill in the other values on his character sheet.

1.7

RINGER CHARACTERS (OPTIONAL)

The Ringer characters represent special individuals selected for their skills and abilities. They represent those extraordinary people who appear now and again throughout history, men and women groomed to assume the roles they lead. Rhand's Ringers are such people, and as such are gifted by special abilities and protected by powerful forces.

Special Ringers

Ringers who have Special background are a group of people with special abilities. This special ability is an extraordinary Telepathic Sensitivity (TS) characteristic. They have a TS characteristic of 21.

A Special Ringer's extraordinary TS allows him to develop Skill Levels in what will be called **Virca.**™ This special Skill gives him the ability to increase his HLT characteristic for 12 hours each day by one point per 10 Learning Points (LP) in Virca, increase his Knockout Value for 10 minutes each day by his Gun Combat Skill Level for each 8 LP, increase his Maximum Speed by one point and Combat Actions by 2 points for 5 minutes each day per 20 LP, and deduct one week of healing time from injuries each day for each 20 LP. Up to two times the character's Learning Points in Virca may be spent each day on these abilities.

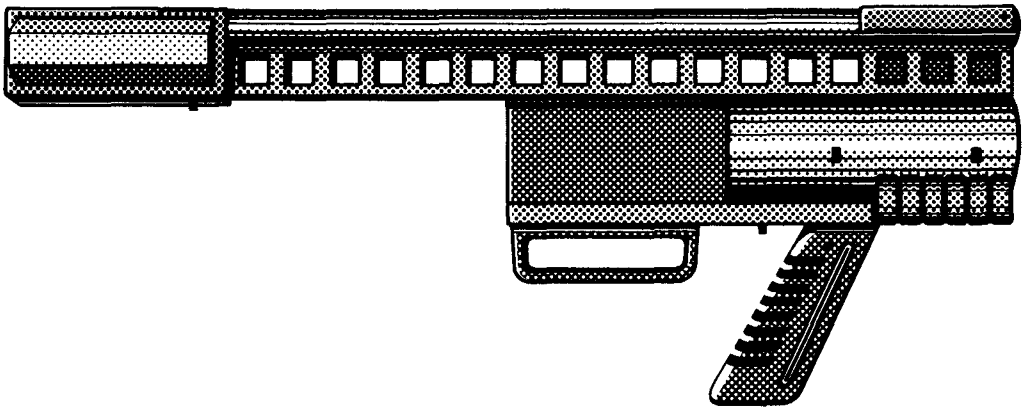
Special Ringers start play with Learning Points in Virca equal to their Learning Roll (Section 1.5, Step 7).

Exceptional Merit Ringers

Ringers with Exceptional Merit have been distinguished by valor above and beyond the call of duty. When they were selected and saved for use on Rhand biomodifications were made. These modifications are not readily apparent, but improve their survivability. Since few of these operations could be performed, those treated were individuals of proven value. The Exceptional Merit Ringers are such people. This treatment gives them an additional Recovery Roll for each Exceptional Merit won. In other words, a Ringer who has won 2 Exceptional Merits can make three Recovery Rolls to survive. If any of the three rolls are made, he survives and recovers. These Ringers may also ignore the Permanent Disabling Injury rules of the **Advanced Phoenix Command Supplement.**

Ringers with 2 Exceptional Merits autonomously receive Medical Aid equivalent to a Field Hospital for all injuries and have one-quarter normal Healing Times (Section 8.1). Ringers with 3 Exceptional Merits receive Medical Aid equivalent to a Tech Level 18 Trauma Center and have one-tenth normal Healing Times.

Ringers who trained with Seven Sword Combat or Command Teams will be equipped with Seven Sword Power Armor and Battlepacks. Ringers accepted to **Kami™** training receive Special Ringer attributes as well as triple Exceptional Merit advantages.



7SLR8: Seven Sword Lase/Rocket Rifle Battlepack

2

SKILLS AND ACTIONS

The character's characteristics and Skill Levels have been determined, but exactly how do they affect his chances of leaping the chasm or infiltrating an enemy camp. Accomplishing these and hundreds of exploits is the subject of this chapter, for this chapter is devoted to how the character interacts in the game world. How he uses his skills to accomplish literally any feat.

Accomplishing these feats is a matter of skill, innate ability, and, to some degree, luck. While a character's innate ability and luck may be beyond his control, his skill he can definitely improve through training and experience. Since skill and ability go hand-in-hand, skill training and experience are also included in this chapter.

But before we go into the details of skill training and the use of skills, lets examine how we measure a character's skill, the value we call the **Skill Level.** This Skill Level is a number from 0 to 20. The greater the Skill Level the greater the expertise as shown in the following table.

Skill Level	Rating
15	World Class
12	Master
10	Expert in Field
8	Professional
7	Journeyman
6	Intermediate
4	Amateur
1	Novice

As expected, the Skill Level greatly effects the character's chances of success in performing any endeavor. This will become apparent in the following sections, but first let us examine these skills.

2.1

SKILLS

A character may learn any number of skills. This book outlines dozens of skills and how they influence a character's ability to interact in the game world. They have been divided into three categories: General Skills, Qualified Skills, and Professional Skills.

General Skills refer to a number of skills in areas such as gun combat, diplomacy, climbing, and driving. **Qualified Skills** are specialized skills indicating the character is qualified to use specific pieces of equipment, such as Lase Weapons or Power Armor. General and Qualified Skills tend to be those the character uses when interacting with the physical world in an adventure setting. These skills typically determine his chance of success at any number of feats while on an adventure or mission.

Professional Skills are those the character develops in the course of his career. They represent skill and knowledge he uses when interacting with the world on a day to day basis. His profession, work, and hobbies make up these Professional Skills. They form a background from which he can understand the world and are the basis for role-playing interactions in a non-physical setting.

General Skills

General Skills are broad areas of expertise in such physical interaction skills as climbing, driving, and gun combat. A number of General Skills are listed on the upper right side of the character sheet. These General Skills are those the character typically uses when on a mission. They are not skills a civilian would practice, but are skills required for survival in a military or adventure setting. As such, they are part of a character's training regime.

General Skills have been divided into three Classes. **Class 1 General Skills** form the character's basic training and include the more common and easily taught abilities that lend themselves to group instruction. **Class 2 General Skills** require more intense individual or small group instruction and are typically available only to experienced troops and squad leaders. **Class 3 General Skills** are those whose training requires special and limited resources. Class 3 skills are often available only to elite forces and mission specialists. A description of each of these skills is given below to outline the situations in which each is useful.

These skills are by no means the only skills available or of merit. Knowledge and practice of Professional Skills is essential in developing well rounded characters and should not be overlooked. Without Professional skills a character is two dimensional and would not fit into the real world.

"Fall back medic! If I die, I die. If you die, the Team dies."

Niki

Class 1 General Skills

Balance/Footwork: Expertise in moving upon uneven surfaces and maintaining balance in situations such as tightrope walking. It aids the character when crossing narrow beams, standing on a moving surface, or moving on cluttered battlefields.

Diplomacy: Negotiation and communication proficiency which aids in bartering, settling arguments, arranging truces, and avoiding fights.

Gun Combat: Skill and proficiency with firearms and small arms tactics. It determines overall weapon, tactical, and movement proficiency on the battlefield.

Hand-to-Hand Combat: Attack and defense skills with hand-to-hand weapons.

Fall Recovery: Ability to fall properly, minimizing damage and the time to regain footing.

First Aid: Medical Aid skills up to Medical Skill Level 4. A character must have a First Aid Skill Level of 3 or greater to administer First Aid.

Unarmed Hand-to-Hand Combat: Unarmed combat using hand strikes, kicks, locks, holds, and throws.

Class 2 General Skills

Archery: Use of bows, crossbows, and slings.

Climbing: Free climbing and the use of climbing equipment.

Horsemanship: The riding and care of horses. This skill is required for mounted combat or maintenance of a horse.

Infiltration: Moving quietly and undetected to penetrate guarded or secured areas. It aids in sneaking up on guards, picking locks, and avoiding traps.

Perception: Remembering and detecting details of a situation and the emotions of others. This talent helps to tell if a person is uneasy or lying as well as increased awareness.

Survival: Knowledge of the outdoors, with emphasis on wilderness survival, tracking, and stalking. This skill helps a character to move silently and survive in the wilds.

Traps/Spotting: The ability to detect and avoid a variety of traps ranging from trip wires to tactical maneuvers. This skill is essential to a Team operating in enemy territory and often distinguishes the Team Leader.

> **"The medic wears the heaviest armor, but uses it the least."**
>
> Jason

Class 3 General Skills

Con/Acting: The art of acting, impersonation, and disguise. It also includes skills used in smuggling and forgery.

Demolitions: Expertise with explosives, mines, and detonators including the setting of explosive traps and demolishing structures.

Driving: Ground vehicle driving skills focusing on high speed maneuvers and pursuit. Street legal driving requires Skill Level 1 only. Higher skill indicates experience and training in high speed maneuvers.

Espionage: Training in organizing and gathering information by methods ranging from subtle questioning to networks of spies and informants. It includes skills necessary to operate undetected in enemy areas.

Medical Aid: Medical Aid greatly improves the chance of survival. A character must have a Medical Skill Level of 6 or greater to operate in an Aid Station, and 8 or greater to operate in a Field Hospital or Trauma Center.

Scavenging: General knowledge of what parts and materials machines are made of, how to take them apart with a minimum of damage, and how to process the scrap into useful material.

Scouting: Exploring and reconnoitring unknown territory. This helps in cutting travel times, detecting danger, and reconnoitring enemy positions.

Sleight of Hand: Manual dexterity training which aids in picking locks and pockets, and in doing sleight of hand tricks.

Qualified Skills

Qualified Skills represent expertise with specific pieces of equipment. Unlike General Skills, Qualified Skills are specific in application and determine whether a character can safely use that equipment.

A character learns Qualified Skills in the same manner as General Skills. For such training, both an instructor and equipment must be available. There are five Qualified Skills listed on the lower right side of the character sheet. The safe use of those equipment require the minimum Qualified Skill Level given below in parenthesis next to each Qualified Skill. Characters using equipment they are not qualified for may damage the equipment or themselves as detailed in the **Action/Reaction Table (6)** of Section 2.4.

Characters who have Qualified Skills generated during character background have a Skill Level equal to that given below in parenthesis.

Power Armor (7): Expertise in the use of Power Armor. Power Armor requires the person to have surgically implanted sensors (High-Tech Weapon Supplement, Section 2.2).

Lase Weapons (2): Training and skill in the use and maintenance of small arms lase weapons.

Explosive Weapons (3): Qualification with hand held or shoulder fired man portable explosive weapons.

Heavy Weapons (5): Qualification with tripod and turret mounted heavy support weapons.

Grav Vehicles (8): Training and skill with anti-gravity (grav) vehicles. Qualification is essential for safe operation of grav vehicles (See Driver and Grav Vehicle entries of the Action/Reaction Table (6) of Section 2.4).

Professional Skills

Professional skills are those normally associated with day to day life. They include skills in management, computer programming, machining, photography, and engineering. These skills represent the character's overall background knowledge and experience. While these skills might not help a character stay alive in a combat situation, they form the basis for his interaction with society and are essential to role-playing.

These skills are used to determine a character's knowledge and his ability to design and build. As such they are vital to campaign play in the apocalypse setting of Rhand. The character background rules of Section 1.3 did not develop these Professional Skills. They will be developed in the next section.

2.2

GENERATING PROFESSIONAL SKILLS

Table 5A is a list of some Professional Skills. It is by no means a complete list, and can be used as a guide from which the player can develop others. To determine an adult's initial Professional Skills, pick up to INT (Intelligence characteristic) skills from this table as those he has experience with. The character is then given his INT times his LR (Learning Roll, Section 1.5, Step 7) in Learning Points to determine his initial skill levels in these fields. Determine the initial Skill Levels in these fields using the **Learning Point Total Table (5D)** as shown in the following example. The player should modify these rules when applying them to a child or young adult. **Table 5B** has been provided as a guide for determining a non-player character's skill level in his primary occupation.

Example:

Trent has an INT of 12 and a LR of 16. He therefore has 12 × 16 = 192 LP to distribute in up to 12 Professional Skills. For simplicity, assume he chooses only three skills wood carving, mathematics, and astronomy. If he puts 88 LP into wood carving, 88 into mathematics, and 16 into astronomy he will have allocated all his LP and would be 7th Skill Level in wood carving, 7th in mathematics, and 4th in astronomy (see Table 5D).

2.3

LEARNING SKILLS

A character may improve his skills through training and instruction. A character trains in each skill separately, and a different Skill Level is kept in each.

The skills in which a character may train depend on the availability of equipment, facilities, and instructors. This availability depends greatly on the world setting and has been left to the Gamemaster.

Provided a character is free to train, each month the character receives INT **Training Rolls** (INT is his Intelligence characteristic). For each Training Roll, a 00-99 number is rolled. If a number less than or equal to his **Learning Roll** (Section 1.5, Step 7) is rolled, he receives one **Learning Point** in a skill. The player chooses in which of the available skills the point is applied. When the accumulated Learning Points in a skill equals the **Learning Point Total** of **Table 5D**, the character has attained that Skill Level.

Example:

Trent has an INT = 12 and decides to put five Training rolls into Gun Combat, five into Infiltration, and two into his hobby of wood carving (Professional Skill). For his 5 rolls in his Class 1 skill (Gun Combat) he rolls a 63, 75, 09, 15, and 27. If his Learning Roll is 16, he gains 2 Learning Points (LP) in Gun Combat that month. The same would be done for his five rolls in Infiltration training and 2 in wood carving.

Training and Mission Setting

When playing in the Mission Setting of Section 5.3, each month the character is uninjured and not assigned to a mission he may request training in one skill from each skill category Class 1, Class 2, Class 3, and Qualified. The character then rolls a 00-99 number. If this roll is less than or equal to the **Training Acceptance Roll** of **Table 5C**, he has been accepted for training that month and may train in that skill. If the roll is greater than the Training Acceptance Roll, he was not accepted that month and cannot train in that skill. A character may always train in any Professional Skill for which the facilities and materials are available.

Example: Trent is signed up for Crack Duty Assignments and was not required to go on a mission this month. He chooses to apply for training in gun combat (Class 1), Infiltration (Class 2), Driving (Class 3), and grav vehicle (Qualified Skill). Trent rolls a 62 for his acceptance roll and is accepted for training in his Class 1 and Class 2 skills only.

On the Job Training

Instructed training is not the only way a character can improve his skills. A character's skills also improve with on the job experience. Each month a character works he receives his INT ÷ 4 Training Rolls.

Teaching Characteristic (optional)

An instructor's Teaching characteristic influences the rate at which his students learn. In the basic rules, each student gets his INT Learning Rolls for each month of instruction. Using these optional rules, the number of Learning Rolls a student gets is given in the following table opposite the instructor's Teaching characteristic (INT = student's INT characteristic).

TCH	Learning Rolls	TCH	Learning Rolls
3	INT - 4	12 - 13	INT + 1
4	INT - 3	14 - 15	INT + 2
5 - 6	INT - 2	16	INT + 3
7 - 8	INT - 1	17	INT + 4
9 - 11	INT	18	INT + 5

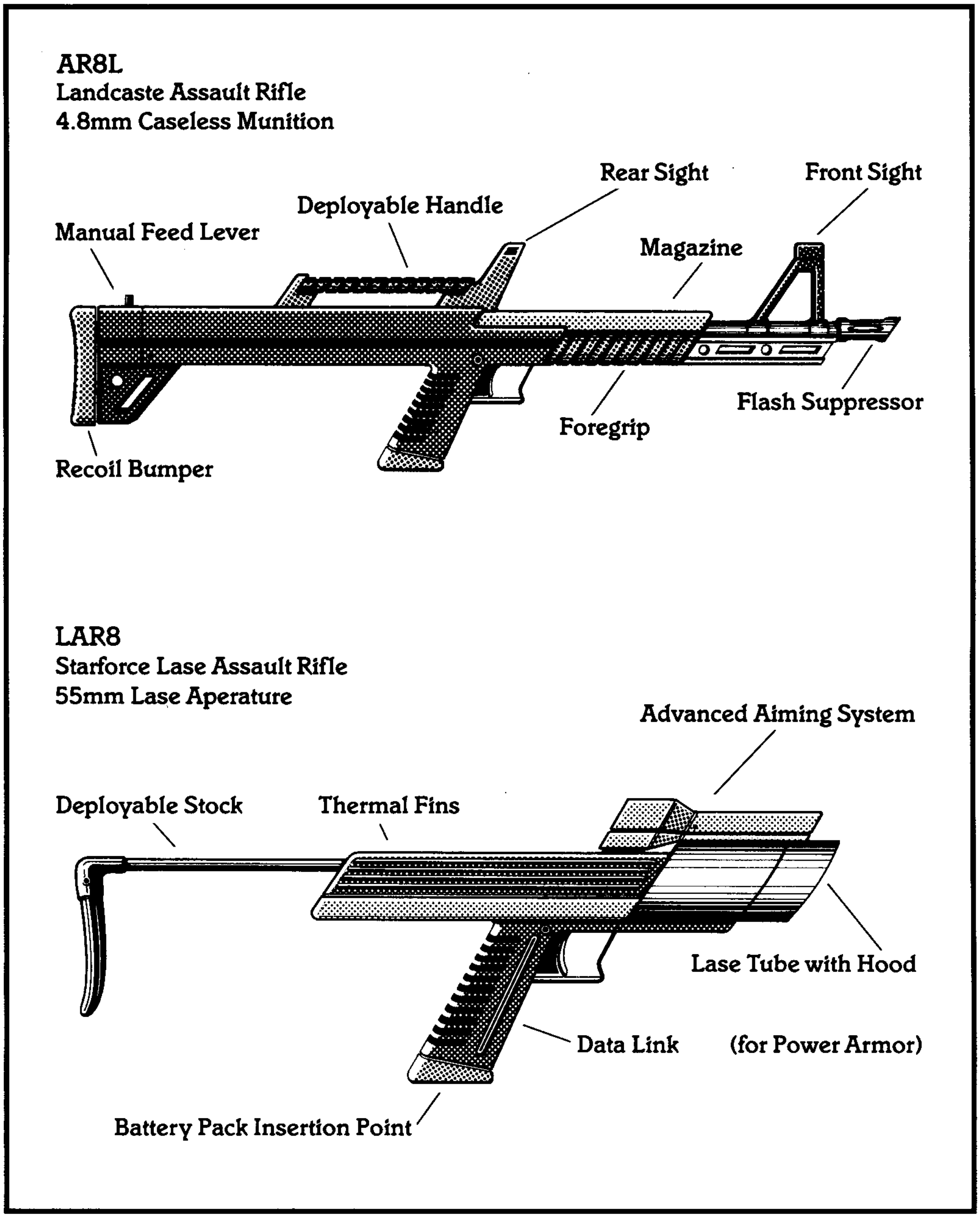
"Don't worry, by the time we get there I'll have figured it out."

Sergeant Ingram

The maximum number of students an instructor can teach is give below opposite skill Class.

Maximum Number of Students

Class 1	Instructor's	TCH × 3
Class 2	Instructor's	TCH × 2
Class 3	Instructor's	TCH
Qualified	Instructor's	TCH
Professional	Instructor's	TCH × 4



Assault Rifles

> **"On the Seven Worlds my work was just as vital, just as critical, but I was part of a team. Now I'm alone. The responsibilities of maintaining this hardware are enormous. I don't know how long I can take the pressure."**
>
> Diary excerpt
> Sandy Jorden
> Senior Technician
> Gold Targa Legion, 2349

2.4

ACTION/REACTION TABLE

The **Action/Reaction Table (6)** is a powerful tool from which a character's **Success Roll** at performing hundreds of feats may be found. These feats range from scaling a cliff to repairing a weapon. The table combines the ability of the character with luck to give odds of success, or Success Rolls. Each feat is found under the skill which increases the chances of successfully doing the deed. Next to each entry is its **Base Odds.**

The Success Roll is the sum of the Base Odds and the character's Skill Level in the skill under which the feat is listed. To determine if the character successfully performs the task, sum the roll of **three six-sided dice.** If this sum is less than or equal to the task's Success Roll, he has accomplished the task. If the sum is greater than the Success Roll, he fails.

Note the **Key** at the top left of the table. These notes occur throughout the listings and refer to these important notes.

"Seeing as I'm right, and you disagree, you must be wrong."

Sergeant Ingram

Example:

Donovan is on a solo reconnaissance mission traveling north on a dirt bike when he hears gunfire. Referring to the Gun Combat entry of the Action/Reaction Table (6) we see that determining the direction of the gunfire has a Base Odds of 7 with a Note 1). Donovan is 3rd Skill Level in Gun Combat, so he adds 3 to the Base Odds for a Success Roll of 10. Donovan rolls a 6, 2, and 4 on three six-sided dice and his total is 12. This is greater than the Success Roll, so he fails his attempt. Referring to Note 1), we see he should keep rolling until he makes his Success Roll. Donovan's total for his second roll is a 9, so he knows the direction of the gunfire within plus or minus 20% (see Note 1)).

The **Action/Reaction Table (6)** contains many **interactive entries.** These entries involve the skill of the opponent or risk of the feat being performed. Their Success Roll is often a number minus the opponent's Skill Level (SL) or risk factor.

Example:

Donovan is a 5th Skill Level driver and is on a dirt bike being pursued by an opponent who is equally mounted. Donovan is unable to out-distance the opponent, so attempts to lose the enemy in dangerous maneuvers. Entering the Driving entry of Table 6, we see the Base Odds for losing an opponent by performing dangerous maneuvers is 14 − N, were N is the chosen risk of the maneuver. Donovan chooses an N = 4. This makes his Success Roll 14 − 4 + 5 = 15. Donovan rolls a 10 on three six-sided dice. Since his total is less than or equal to the Success Roll, he performs the maneuver.

The opponent chose to follow Donovan into danger but was not as lucky. He also is a 5th Skill Level driver and his Success Roll is also a 15. He rolls a 16 on three six-sided dice. This is greater than his Success Roll, so he fails and crashes. Referring to note 5) as directed by this entry, we see he has not damaged the bike but must refer to note 3). Going to note 3), we see he takes N × I × (6) × 5 Physical Damage points. He rolls a 3 for the six-sided roll and takes 4 × 1 × 3 × 5 = 60 Physical Damage points.

Aborting a Feat

In some cases, the character may begin a feat, size up his chances, and then decide whether to commit or abort the attempt. Examples of these actions are landing a plane or hurdling a wall. For such actions, the character may roll one of the three six-sided dice and then make his decision to commit or abort the attempt. If he rolls a 6 on this first die, he may elect to abort. If he rolls a 1, he will be confident and continue.

If the character aborts the attempt, he suffers no ill effect other than a loss of time, a missed opportunity, and possible embarrassment. Note that many feats do not lend themselves to this advantage. Specifically feats followed by a Note 1), or actions such as smugging an item past an inspector. Once the character is in line awaiting inspection, it would be very suspicious to suddenly bail out.

The skill, training, and Action/Reaction system provides a flexible yet consistent set of rules which the player can expand to include any skill or situation he desires. The preceding examples are a sample of the versatility of the Action/Reaction Table. Literally hundreds of physical and mental actions are contained. Players are encouraged to study the table and modify or expand it to meet their needs.

Skill Level Modifiers (optional)

The Base Odds of **Table 6** give the Success Roll for an average person of Skill Level zero. Adding a character's Skill Level to the Base Odds adjust the Success Roll to account for skill and expertise. This basic Success Roll applies to characters with near average characteristics. These optional rules present a system for further adjusting the Success Roll to account for extreme characteristics.

Each skill entry of **Table 6** has characteristics enclosed in parenthesis. These characteristics are those primarily influencing the majority of actions under that skill entry. For each, the character may add the following modifiers to his Skill Level depending on his characteristics.

	Characteristic									
	3	4	5-6	7-14	15-16	17	18	19	20	21
Modifier	-3	-2	-1	0	1	2	3	4	5	6

Example: A 3rd Skill Level climber with STR = 16 and AGI = 15 attempts to climb a free hanging rope. The Base Odds for this feat is found under the Climbing entry and is an 11. Because the character has excellent STR and AGI characteristics, (those indicated in the Climbing entry in parenthesis) his Success Roll for this feat is an 11 + 3 + 1 + 1 = 16.

The characteristics given for each skill entry have been selected to cover the majority of feats under each entry. The Gamemaster is free to add or subtract characteristics for which Base Odds Modifiers apply.

2.5

FIELD REPAIR

The following are a simple set of repair rules which cover repair of common equipment in the field. Major repair of equipment; parts, materials, and skills required are the subject of Chapter 9: Construction and Repair.

For repair of Minor damage, refer to the Repair entry of **Table 6.** Only one repair attempt can be made, so the best available person should attempt the job. If the Success Roll is made, the repairs are made. If the roll is failed, the equipment will have to be brought to the shop for repair as detailed in Chapter 9. A character's field **Repair skill level** is given under the **Ability** entries for specific equipment and skills.

2.6

EXPERIENCE

A character may advance in Skill Level through actual Experience in dangerous situations. Advancement through experience may be more rapid than through training, although it is far more dangerous. In fact, danger is an important requirement for gaining Experience, so the Gamemaster must have guidelines as to when Experience should be awarded. A character gains Experience when extending his abilities beyond his normal limits in a crisis situation. A crisis situation is an event involving danger, where someone or something is depending on the character for help. Examples of crisis are: combat, natural disasters such as floods, fires, and earthquakes, and any threat to the character's life.

Experience is given in Learning Points (LP) which may be applied immediately. How Experience is awarded is covered for each type of skill below.

General Skill Experience

A character gains one Learning Point in a specific General Skill each time he successfully performs a feat under that General Skill (see **Action/Reaction Table (6)**), whose Success Roll is less than 11. This feat must be performed in a crisis situation, where his actions put him at risk and are necessary for his or others welfare.

Combat Experience

A character is awarded combat experience each time he incapacitates an opponent in a crisis situation. Combat experience is limited to one opponent per act and the opponent must have a weapon capable of penetrating the character's heaviest armor. In other words, a character setting a trap which incapacitates 20 opponents gets credit for only one, and defeating an opponent armed with a pistol while in Power Armor gives no experience. The Experience gained in Learning Points is equal to the opponent's Skill Accuracy Level (SAL) divided by 10 plus armor PF divided by 100. These Experience points are given for common troops under the Exp value in the **Troops and Enemies Description Table (10).**

2.7

PURSUIT

The rest of this chapter contains rules involving specific General Skills. They help the Gamemaster handle common game occurrences and may be skipped by the general player.

One of the most common occurrences is the enemy pursuing the characters. To handle this, each enemy has a **Pursuit (P)** skill level on the **Troops and Enemies Description Table (10).** The Pursuit (P) skill level measures the enemies ability to pursue, maneuver, and trap an opponent. To determine if the Team can escape an enemy, subtract P from the sum of all applicable modifiers from the **Pursuit Table (5E).** This is the Base Odds.

Each hour the enemy pursues the Team, the Team must sum the roll of three six-sided dice. If less than or equal to T + Base Odds is rolled, the Team has evaded the enemy that hour. If greater than the above is rolled, the enemy has caught them and forced an engagement. The T value is the Team leader's Traps/Spotting Skill Level.

In forcing an engagement, the enemy has maneuvered to intercept the Team and an engagement is mandatory; the enemy holding the pass, bridge, or river ford. In the case of a single pursuing enemy, that pursuer intercepts the Team. In the case of a dispersed enemy, one enemy unit on patrol has caught them. In this case, the numbers and arms of this patrol are found using the enemy generation rules of Section 5.5.

Each hour the Team evades pursuit, the enemy must roll a 1-10 number. If less than their Pursuit skill level is rolled, they continue the pursuit another hour. If greater than or equal to their Pursuit skill level is rolled, they give up. If the enemy continues the pursuit, the Team would have to make the next hour's Avoidance Roll. This process continues until the Team teleports out, is caught, or the enemy gives up.

2.8

SCOUTING

The purpose of a Scouting mission is to obtain details of the enemy's activities. To obtain this information the Team must penetrate the enemy's screens. The deeper the Team scouts into enemy territory, the greater the information gained and the greater the danger they face. The Team decides how far they wish to push the mission.

To determine whether the Team is detected and what information they learn, refer to the **Pursuit Table (5E)** and sum all applicable modifiers. Subtract the enemy's **Espionage Skill (E)** from this sum to find the Base Odds. The **Scouting Odds** are T + Base Odds, where T is the Team leader's Traps/Spotting Skill Level. The enemy's Espionage Skill (E) is found on the **Troops and Enemies Description Table (10).** To penetrate the enemy's screens, the Team must sum the roll of three six-sided dice. This sum must be less than or equal to the Scouting Success Roll. Each time they make this roll, they avoid detection and move one line down the **Scouting Information Table (5F),** gaining the information listed. The time required to penetrate each level is E hours.

Once the Team decides they have gained enough information, they can retreat. To retreat undetected, the Team must make **N** (from **Table 5F**) successful Scouting Success Roll. If any of the Scouting Success Rolls are failed, the Team has been detected and the enemy will pursue. If unable to escape, the enemy engaging the Team should be determined using the normal enemy generation rules of Section 5.5 at a mission Risk Level = Initial Mission Risk Level plus N.

Example:

Reports of trouble in the northern reaches result in a recon Team being sent to scout the area. The enemy turns out to be an organized dispersed group with communications equipment and Espionage Skill = 4. Adding all applicable modifiers from the Pursuit Table (5E), the Base Odds are:

	7	Organized dispersed enemy with communications gear
	-2	Enemy knows the territory
	2	Team has a Guide who knows the territory
	-4	Enemy's Espionage Skill
Base Odds	3	

The Team leader's Traps/Spotting Skill Level is 8th, so the Scouting Success Roll = 3 + 8 = 11. The Team decides to penetrate the enemy's screens to determine the size of their force. Four hours later, the Team rolls a 10 for the Scouting Roll and move to the first line of the Scouting Information Table (5F). They know the enemy numbers accurately to 50%.

The enemy force is large and the Team leader feels more information is needed. They continue with a deeper recon. Eight hours into the mission they attempt another Scouting Roll. A 9 is rolled, so they succeed in going to the second line of the Scouting Information Table (5F). They now know the enemy numbers accurately to 20% as well as a rough idea of enemy disposition.

With this information the Team leader decides to retreat out of enemy territory. Two rolls must be made to retreat undetected. Twelve hours into the mission the first of these rolls must be made. It is now dark, so the Base Odds B = 5, since the +2 Night operations against non-Spectrals applies. The Scouting Success Roll is now 5 + 8 = 13. A 15 is rolled. This is greater than the Scouting Success Roll, so the Team has been spotted by an enemy patrol. The Team can now either fight or flee. The numbers and arms of the enemy patrol should be found using Section 5.5 at a Risk Level = original mission Risk Level + 2.

2.9

INFILTRATION

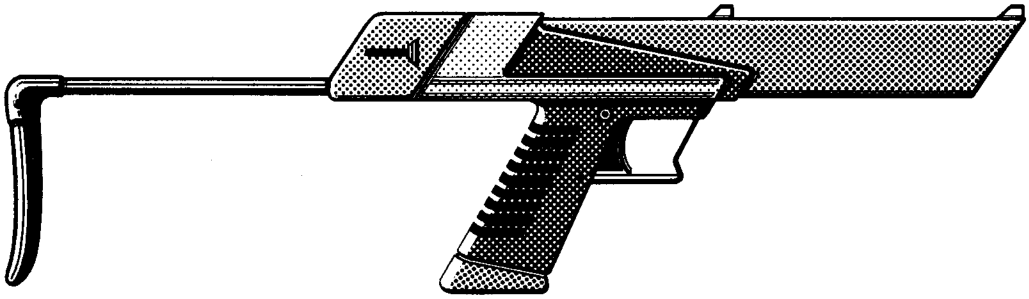
Infiltration is an operation actually penetrating into the enemy's camp. To do this, the Team must first successfully make four Scouting Rolls (Section 2.8). If they make these rolls, the the chance they can Infiltrate the camp undetected is based on the **Pursuit Table (5E).** Subtract the enemy's **Espionage Skill (E)** (from **Table 10**) from the sum of all applicable modifiers from **Table 5E** to find the Base Odds. The **Infiltration Success Roll** is I + Base Odds, where I is the Team leader's Infiltration Skill Level.

"Look an oasis of urban civility."
Sergeant Ingram

For the Team to enter the enemy camp they must make three Infiltration Rolls. For each, the Team sums the roll of three six-sided dice. If less than or equal to the Infiltration Success Roll is rolled, they move one line down the **Infiltration Table (5G).** To retreat undetected, they must make **N** (from **Table 5G**) successful Infiltration Rolls. Failure of any Infiltration Roll, results in the Team being detected and an alarm raised. The Gamemaster should then go to the playing surface to resolve the actions which follow.

The preceding rules applies to general camp entry, not specific target approach. Once the Team enters the compound, the Infiltration and Perception entries of the **Action/Reaction Table (6)** should be used.

The number in the infiltration team should be less than two times the Leader's Infiltration Skill Level. If more members are present, the Team should be split into two or more groups. Each group would have its own leader and Infiltration Success Roll, and would infiltrate separately.



FMPX8:Flechette Machine Pistol

EQUIPMENT

3

Rhand is a world of diverse technology. Recreational all-terrain vehicles crawl over the surface while grav vehicles cross its skies. It is a world where wilderness resorts, wood burning stoves, and kerosene lamps lie moments away from Startech Launch Facilities.

Rhand was a planet whose technology provided the best of all ages: the simple comfort of a wood burning fire, the open beauty of a mountain cabin, the life saving efficiency of a high-tech medical facility. Now it is a planet preoccupied with survival. Weapons, transport, power, medical aid, and food are the chief concerns. This chapter provides an overview of these equipment and tools.

3.1

POWER

Power is one of the most critical items to an advanced civilization. Without power, civilization as we know it would collapse. Today, control, maintenance, and protection of Rhand's delicate power system is one of the most critical and hardest fought battles.

Because most of the equipment discussed in this chapter depends on power, it is the first item presented. Access to power is probably one of the character's first concerns.

Power Generators

Rhand had nine Power Generators located near the north and south poles. These generators provided the power to run the entire world. Today two of these generators are nonoperational, three are in Slozek hands, and four in Larden hands. The Slozek were Spectral mercenaries who attacked and captured the five southern pole generators during the initial invasion. Since the breakdown of Spectral command, the Slozek have maintained control of those generators and are seeking technicians and engineers to keep them operational. The four north pole generators in Larden hands are currently sealed off from outside contact by their own security teams, but are supplying power to outlying Power Rely Stations.

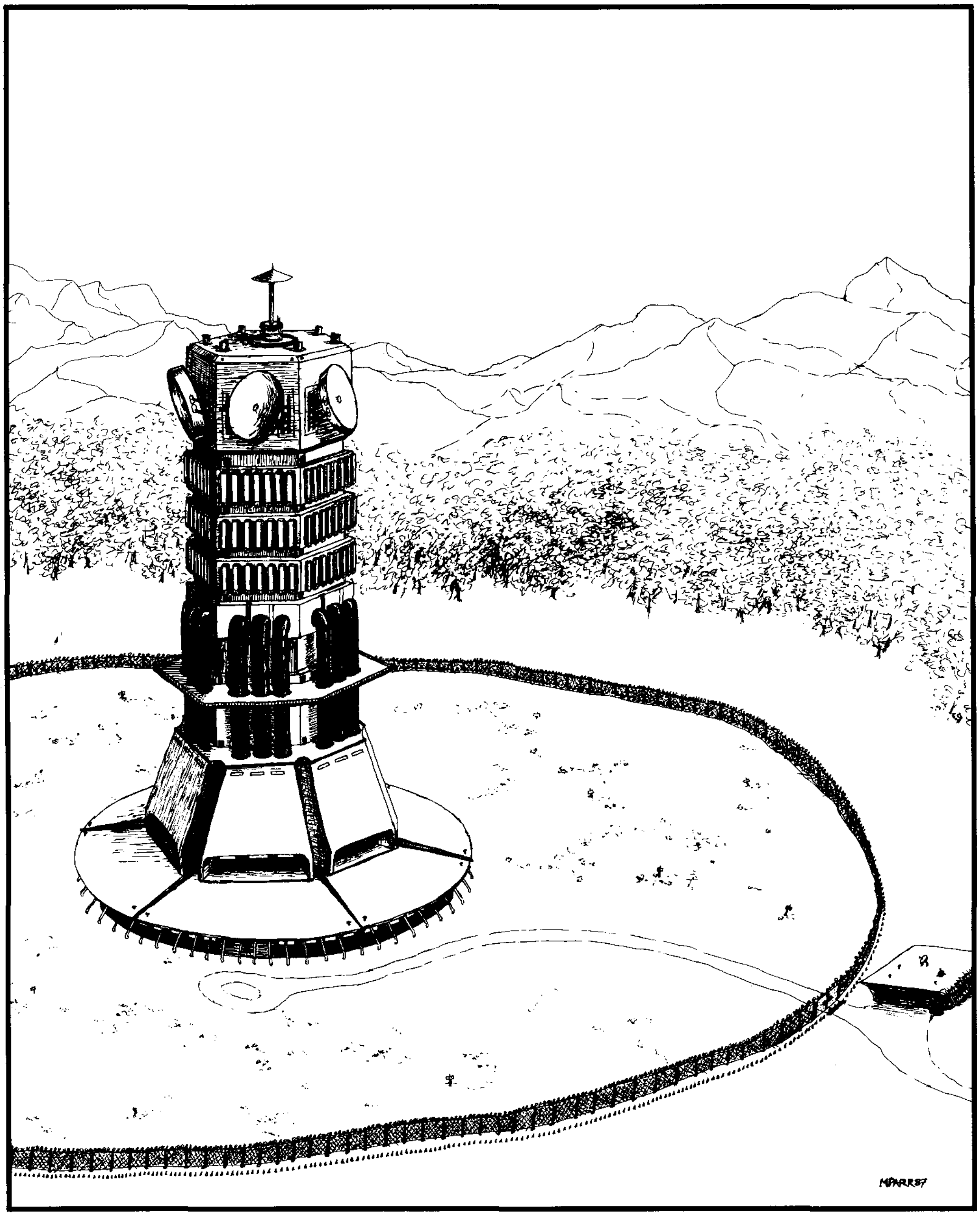
These generators are large complexes composed of a central hub structure 390 foot in diameter with ten spokes each 2010 foot long and 120 foot wide. Surrounding this massive spoked wheel is a high wall inside which lie the smaller buildings and living quarters of the Larden communities. For a description of the Larden and the Slozek, refer to Section 4.4.

Power Rely Station

While power is generated at the polar Power Generators, it is dispersed for use through numerous Power Rely Stations. These large single tower structures dot the landscape in a grid forming a chain from their parent Power Generator to outlying regions. This chain has redundant paths to high use areas since, failure of an upstream Power Rely Station shuts down all downstream stations.

Whoever controls an operational Power Relay Station commands power distribution to all who live downstream, as well as anyone within the immediate 300 miles. The groups holding these stations have become the Newlords of Rhand's dark age. The closer to the parent Power Generator, the more valuable the station, for the greater the tribute paid by lesser stations. A new economy of barter has been established, and those who control the flow of power, control the people.

"These stations are our life line. Remember, there is no long term military way of securing our power link. Trust and cooperation will be the key."
Jason



Power Relay Station

Power Receivers

Power Receivers vary in size from small man-portable antennas to large fixed dishes. These Receivers all have tamper proof codes and can pick up power any time they are within 300 miles of an authorized Power Rely Station. Authorized means registered with the station. The Receiver's owner paid to list his ID code with each station he wanted to access. To ensure profits, great expense was taken to make this coding tamper proof.

These Receivers are found in three standard sizes; portable, mounted, and fixed. A portable unit can power any one piece of General equipment. The larger Mounted Receiver can power up to ten pieces of General equipment, or any one piece of Major equipment. The Mounted Receivers are not man-portable and are mounted on vehicles and major equipment. Fixed Receivers were mounted on installations and buildings, their power capability varying with need.

Expendable Power Pack (EPP)

Expendable Power Packs (EPP) are ten pound, single use chemical power generators. Like 20th century batteries, they are handy, easily stored, portable energy cells which can be used to recharge equipment. Originally developed for the military, the EPP has found its way into the civilian market and are common on Rhand for use in remote areas unserviced by Power Rely Stations.

Power Equipment

Power equipment, tools, and devices have their own rechargeable power packs. These packs provide 20 hours of operation. After 20 hours they must be recharged for 4 hours from any Power Receiver or EPP.

Large equipment such as vehicles and heavy equipment have their own Mounted Power Receiver. This gives them continuous power whenever 300 miles from an authorized Power Rely Station.

3.2

WEAPONS AND ARMOR

While many of the weapons found on Rhand were brought by the Spectrals, there existed a large supply varying from common pistols to lase rifles in the hands of Landcaste, Imperial, and Company forces. These weapons and armors are described in the **High-Tech Weapon Supplement.**

3.3

VEHICLES

Rhand was a planet with an advanced teleportation system. As a result, there were few vehicles. What vehicles existed were used for recreation, as large cargo carriers, and by the military. These vehicles were of three basic types: Ground Vehicles, All Terrain Vehicles, and Grav Vehicles.

Ground Vehicles

Rhand's Ground Vehicles are much like today's cars and trucks. They have tires, suspensions, power trains, and all the trappings of a common car. Where they differ is in their power plant. These vehicles are turbine driven, much like 20th century railroad tractors. They draw electrical power through a Mounted Power Receiver from the community's Power Relay Station. They are designed only for operation upon paved surfaces within range of a Power Relay Station. They primarily served the Bondsmen community, as Bondsmen were denied access to the teleporting system.

Ground Cars: Ground Cars were the most common form of vehicular transportation on Rhand. They are small efficient vehicles designed to transport Bondsmen within their communities. Bondsmen did not have access to the ORCA teleporting system except for Landcaste monitored transport to and from work. Within their communities they relied on Mass Transport Trucks or Ground Cars. Only influential Bondsmen were issued personal Ground Cars. Ownership was a distinct sign of status and prestige.

Ground Trucks: Ground Trucks were common in Bondsmen communities and provided shipping and mass transit services. Bondsmen shipping and freight within their communities was restricted from ORCA transport and relied upon Ground Trucks.

All Terrain Vehicles

Rhand's All Terrain Vehicles are very similar to 20th century jeeps and trucks. They are powered by alcohol burning internal combustion engines. Fuel stations for these vehicles are found at most Power Relay Station and was produced by a number of Subcon companies.

All Landcaste military vehicles are classified as All Terrain Vehicles. On other Starguild worlds, Landcaste forces relied heavily on ground transport. On Rhand, the Landcaste military relied almost exclusively on the ORCA. As a result, the military had little use for their ATVs. These vehicles came as standard equipment, however, and a full complement was sent to Rhand. On Rhand, many were used as field trailers often parked for years without service or maintenance.

"Captain the Sea Cucumber has capsized .... but the fire's out."

Axly Suregrip

All Terrain Vehicle (ATV): Small, tough, off road jeep designed for recreation and service use on Rhand's backroads and wilderness. They are not common in communities, being kept on site at remote work and recreation sites.

All Terrain Transport (ATT): The ATT is the standard Landcaste military vehicle. Designed for extended use in the field it is tough and dependable. Few of these vehicles were kept in good working order on Rhand. Most were parked at remote sites and used as trailers by field personnel.

All Terrain Fighting Vehicle (ATFV): The ATFV is an essential component of the Landcaste military on many Starguild worlds. On Rhand it was unnecessary. Rhand's populace was well behaved and there was little need for fighting vehicles. These vehicles were none the less provided, and for the most part sat neglected in Landcaste military compounds.

Grav Vehicles

Grav, or anti-gravity, Vehicles were the exclusive property of Starcaste military forces. They cannot draw power from a Power Relay Station and have their own power generator. The Startech solid fuel used by these generators was available in limited quantities only at Startech launch facilities.

The majority of Rhand's Grav Vehicles were Grav APC and Grav Carriers. Grav Gunships and heavy support vehicles were available, but attached at Company level. Today, the vast majority of Grav Vehicles are either no longer functioning or are being saved for emergency use. Fuel for these vehicles is no longer available. They are capable of attaining low orbit and atmospheric reentry and serve as the interface between Starmarine and Starfleet forces. If reinforcements ever arrive, these vehicles will be necessary for supply and evacuation. Owners of these vehicles will be reluctant to needlessly use them.

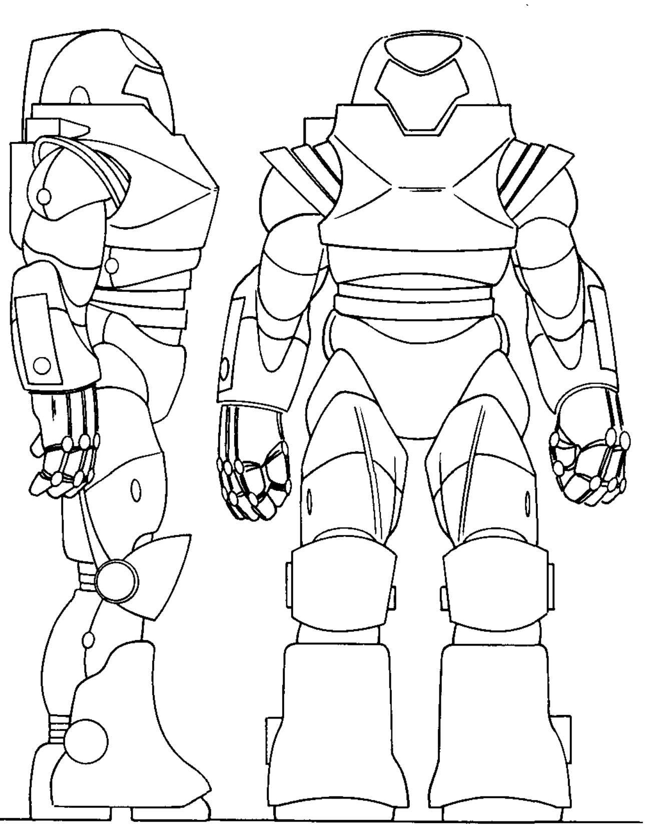
Data for Grav Gunships has not been included in this book. Incorporation of gunships into the combat system requires special rules and will be the subject of our Grav Gunship Combat Supplement.

Grav Armored Personnel Carrier (Grav APC): This is the most common form of Starforce Grav Vehicle. It is a multipurpose vehicle with a number of models adapted to general troop transport, command and control, medical evac, power armor transport, or electronic warfare. A Grav APC is armored and has a weapon turret but were far to valuable to engage ground targets. They were not used for combat ground support and transported troops in and out of secured landing zones.

Nominal Height (in)	78
Gross Weight (lb)	900
Power Capacity (hr)	24
Armor PF	100

Major Subsystems

- Turret Helm
  - Armor Panels
  - Armor Visor
  - Holographic Visor
  - Bifocal Unit
  - Gun Camera
  - Ultrasonic Sensors
- Torso
  - Armor Panels
  - Hydraulic Systems
  - Bicomp
  - Power Units
  - Electronics
  - Auto Medic
  - Life Support
  - Battlepack Adapter
  - Battlepack Sldr Rail
- Arms
  - Armor Panels
  - Hydraulic Servos
  - Injection Kit
  - Battlepack Umbilical
  - WTC Umbilical
- Legs
  - Armor Panels
  - Hydraulic Servos
  - Ground Sensors



Seven Sword Power Armor

> **"The power of Living Steel does not lie in the hardware, but in the heart and soul of the warrior within."**
>
> Dr. Harold Carmel
> Senior Research Fellow
> Seven Worlds, 2182

Grav Carriers: These are large lightly armored carriers used for transporting infantry squads and field support units. They are the work horse of the Starforce military providing essential behind the lines transport and support.

Performance Characteristics

Performance characteristics for these Ground, All Terrain, and Grav vehicles is listed in the **Vehicle Data Table (9A)**. A description of the values follows. Rules for a vehicle in combat are found in Section 7.10.

Size: Vehicle length, width, and height in feet.

Target Size ALM: The vehicle's Target Size ALM for front and side profile.

Weight: The vehicle's Gross laden weight and Cargo capacity in tons.

Passenger Capacity: Maximum passenger seating capacity of the vehicle.

Max Speed: The Max Speed gives the vehicle's ON and OFF road maximum speed in game hexes per phase. The speed in miles per hour is 2 times the Max Speed. The Maximum Speed for Grav Vehicles are for operation in an atmosphere.

Range and WF: The Range is the distance in miles a Ground Vehicle can travel on one fuel load. The WF gives the weight of a full fuel load. For Grav Vehicles, the Range gives the Maximum Operating Time in hours per fuel load. The WF gives the weight of Startech solid fuel in one load.

MEDICAL EQUIPMENT

Rhand had state-of-the-art medical facilities provided by Scan Technologies. Scan was a Senior member of the Starguild, providing medical facilities for the Landcaste and Starcaste. Scan facilities are found on most developed worlds and were known for their efficiency, prowess, and large security force. While these facilities represent the best in Medical Aid, the majority of Medical Aid facilities were run by the Planetary Government and serviced the lower classes. These facilities were surprisingly well run, and Rhand as a whole had a superb medical system. These Technology Levels and the effects of medical aid are detailed in Section 8.2 and **Table 16C.**

Medical Equipment

The following is a list of Medical equipment designed for use in the field. These devices greatly increase the wounded's chance of survival, and, combined with an operating medical facility, are top priority for any operation Team. Use of this equipment is found in **Chapter 8: Medical Aid and Recovery.**

First Aid Kit: Small personal medical kit suited for treating minor injuries. It is not a field medical kit and can be used to administer first aid only if the Damage Total (DT) is less than 100.

Field Medic Kit: Manual field aid kit containing medical supplies and equipment required for administering First Aid. Treatment of each patient consumes 3 lb of expendables. The kit can treat seven patients before it needs to be restocked.

Auto Medic Kit: A manual field medic kit with some automated diagnosis, regulation, and administration abilities. It can be used to administer First Aid by anyone of Medical Skill Level 1 or greater. Treatment of each patient consumes 3 lb of expendables. The kit can treat seven patients before it must be restocked.

Power Armor Auto Medic Kit: Standard Power Armor medical unit. It automatically administers First Aid to the Power Armor user whenever injured and may be used as a Auto Medic Kit for treatment of others. It contains only one supply of expendables, so can at most treat one patient before requiring resupply.

Med Evac Transport: A med evac cylinder intended for ORCA transport. It has a built in Auto Medic Kit and can only be used by one person at a time. Each use consumes 4 lb of medical expendables.

Bio Doc: A portable, automated treatment unit which holds one patient who must remain in it until the end of his CTP. It acts as a Field Hospital and must be serviced by a technician of Medical Skill Level 5 or greater. Treatment of each patient requires 8 lb of medical supplies.

"On my mark ..... Go to Amphicane."
Marcel

Medical Drugs

The following is a list of common combat drugs available for use in Power Armor injection kits or hypodermic syringes.

Herculon: Herculon is a 20 minute duration combat drug which increases the character's Combat Actions by 1, increases his Knockout Value and Disabling Injury limit × 10, and temporarily reduces his Health characteristic by 3-5 points for one week. The effects of the drug cannot be stacked, only one injection is effective at any one time. To extend the duration, multiple injections may be taken limited by the point at which the user's Health goes to zero and he dies.

Anestalon: This is another 20 minute duration combat drug which increases the Knockout Value and Disabling Injury limit × 10 and gives the user two Knockout Rolls to make one each time injured. If it is injected into an incapacitated person, it gives him two Knockout Rolls at Knockout Value × 10 to regain immediate consciousness. If he regains consciousness he is limited only by Disabling Injuries. Anestalon is limited to one use and cannot be used with other drugs. It temporarily reduces the HLT characteristic by 4-6 points for one week. If it is used with any other drug, including Oxyspan, it reduces the HLT characteristic by an additional 7-12 points for one week. If the user's HLT goes to zero, he dies.

Amphicane: Amphicane is a dangerous combat drug of unknown source whose distribution is traced to Neemis Enterprises. Widely used on expendable drop infantry, it is rumored to be available to Imperial Guard units. Amphicane increases the Knockout Value and Disabling Injury limit × 100 and increases Combat Actions by 1. Like Anestalon it gives the user two Knockout Rolls to make one each time injured. The danger is that it reduces the HLT characteristic temporarily for a week by 1-6 points every 10 minutes following injection. If the user's HLT goes to zero he dies. This can only be countered by its antidote injection which has the effects of Somalon. It has the same effects on an incapacitated target as Anestalon but at the Knockout Value and Disabling Injury limit × 100.

Oxyspan: Oxyspan is a life preserving drug which incapacitates the user and increases his Critical Time Period (CTP) × 100, up to a maximum of 2 hours. It is limited to one use, and temporarily reduces the Health characteristic by 1-6 points for one week.

Amne-forte: Amne-forte incapacitates the target for 12 hours and erases all memory of the last 48 hours.

Somalon: Somalon is a standard tranquilizer which puts the target to sleep for 9 to 10 hours.

3.5

GENERAL EQUIPMENT

The following is a brief description of some of the equipment mentioned in the **Equipment Table (8).** Items with rechargeable power packs have their nominal operating time on one charge given next to the entry in parenthesis.

Fighting Harness

A Fighting Harness is an equipment harness worn over normal clothing designed for carrying combat gear such as grenades, magazines, supplies, and tools. It is not required by personnel in Combat Suits as those suits have their own harness.

Headset Comm (24 hours)

Light headset communications gear with a range of about 20 miles. It provides up to 40 channels of encoded communications.

Field Radio (96 Hours)

Portable send and receive radio which has a 1000 mile range.

Navigation Eq (96 hours)

Standard computerized navigational set which has maps of Rhand's non-classified areas and ORCA coordinates. These units where typically used by emergency personnel such as search and rescue teams. Originally these units could show the set's location accurate to 1 yard. Today with Rhand's satellite and communication facilities destroyed, that function is inoperative.

Night Vision Eq (300 hours)

Standard light amplifying binoculars with 1 to 30× magnification capability and range finding. This system is not a thermal mapper and requires some form of background light (although small). It provides high resolution imaging out to a range of 400 hexes (800 yards) under most lighting conditions (Visibility ALM = −2 in darkness).

"I did not ask for, did not receive, and will not pay for item 21 'Tax' on your invoice."

Ronald Unreasonable

Abrasive Saw (24 hours)

Hand held, portable abrasive saw designed for emergency personnel. It operates like a grinding wheel and may be used to cut metal, stone, or softer material. Cutting rate is 20 ÷ PF inches per minute.

Hydraulic Jack (24 hour)

Portable hydraulic jack designed for emergency personnel. It has a 5 ton lift capability.

Construction Equip (Mobile Power Receiver)

This includes large construction equipment such as backhoes, fork lifts, bulldozers, graters, cranes, and drilling rigs.

Fire Fighting Equipment (24 hours)

Fire fighting equipment used in residential or commercial structures. It is ORCA transportable and includes an Encoded pumping stage which transports water and supplies into the unit. The unit can pump either pure water or a water-inert gel up to 100 yards.

Shield

Rigid 3 × 7 ft Blast Shields which fold into 3 × 4 ft units. These shields provide cover for tactical teams and equipment. They are often carried by SCC Power Armor in support of non-powered infantry and have PF ratings from 34 to 102 points.

Tranq Gun

Standard tranquilizer gun with a 20 hex range. It may be used to delivery any of the combat drugs discussed in Section 3.4. The RID of the dart is .2 and weapon accuracy is similar to a SMP8 sub-machinegun.

Starshell

One shot, expendable night illuminating round which fires a parachute flare. The flare illuminates an area about 100 hex radius and burns for 30 phases (Visibility ALM = −2).

Radar Fire Locater (96 hours)

This unit is a short range portable radar designed to locate the origin of any projectile firing weapon. The unit has a 1200 hex range and can locate the source with an accuracy of plus or minus 10 hexes.

Direction Sound (24 hours)

This unit is a directional sound amplifier. It can pick up normal conversation at a range of 400 hexes. (This units increases the range at which sound may be heard by a factor of 30 when using the **Phoenix Command Combat System** Sound Detection rules, Section 5.7).

Position Tracker (96 hours)

This portable position tracker was capable of locating a "Bug" planted on a target with an accuracy of 1 hex. Today, with most of Rhand's satellites destroyed, it can be used as a direction locater only. Its range is limited to 2 miles.

Remote Video (96 hours unit, 1200 hours camera)

Remote video surveillance equipment. The unit contains 2 separate cameras. Each camera weighs 1.8 pounds and offers light amplifying and radar imaging. These cameras are remotely steerable and intended for concealed placement. The cameras may be used in conjunction with directional sound amplifiers. Pickup range is 300 miles.

Scent Tracking (96 hours)

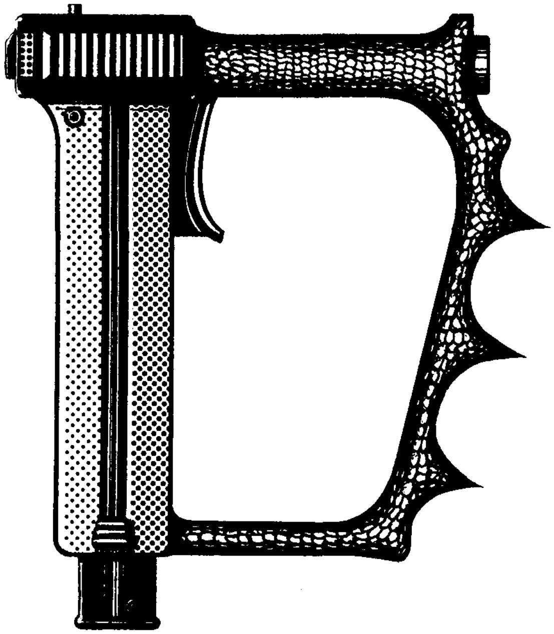
Portable tracking device which can be used to track a human or animal. The unit can also be used as a detector to pick up odors such as fuel and explosives. Under ideal conditions this unit will track a trail up to 14 days old. Rain, high wind, and adverse elements will however quickly destroy a trail. This unit cannot track personnel in Power Armor or Combat Suits with full life support as those suits are designed for minimum contamination signature.

Radar Units (720 hours)

Small trailer sized mobile units used as recon pickets. It can detect airborne vehicles at a range of 100 to 1000 miles depending on the counter measures of the target.

Sonar Units (720 hours)

Remote mobile recon unit designed to detect surface and underwater vessels. It has a range of from 50 to 300 miles depending on the counter measures of the target and is equipped with passive and active sensors.



X7MP1: Spectral Machine Pistol

4

ROLE PLAYING IN RHAND

Living Steel is a role-playing game, and as such can be played by an unlimited number of players on an unlimited scope. Role-playing opens an avenue of entertainment limited only by the players' imagination.

In role-playing, the players interact with the game world and each other through the lives of their characters. These characters are invented by the players and live within the game world. There they are free to pursue any goal, follow any course of action. Their actions, and the world's reaction to them are regulated by the Gamemaster. The Gamemaster is the player responsible for overseeing the game world and actions of the people who populate it.

This Chapter highlights the world of Rhand, the peoples involved, their conflicts and interactions, and the mysterious circumstances they find themselves in. Much of the material is deliberately vague, a simple framework from which the imaginative process can begin. As the game progresses, the players will develop their own unique and satisfying world. A world shaped by their imaginations, fitted to their needs and dreams. This material is not intended to limit the scope of the game or world.

4.1

RHAND'S APOCALYPSE

The world of Rhand is one in turmoil. It has suffered a massive invasion by an alien force, who unleashed both tactical and biological weapons. Much of Rhand's technology and industry were destroyed by space artillery, and its population has been devastated by a viral agent which leaves its victims permanently deranged.

It is into this chaos that the player characters are thrown. Some are Ringers, some Alpha Team members, but all have a common goal, to save what remains of Rhand's civilization, and to build a better world.

In better times, man could choose life in the middle ground. Now, in Rhand's Apocalypse, no one is secure from hunger or assault. There is no middle ground. There are those who yield to the dark side of their nature and join the destroyers, and others who strive to maintain the ideals for a better world. Those who choose the constructive path are the focus of this game. From them the hope for a better future will come.

4.2

ROLE PLAYING

The following details the way in which the game designers role-play in Rhand. This style of play may be quite different from what you may be accustomed and is in no way meant to limit the style or scope of play. It has been provided as a guide for role-playing with the realistic and intense **Phoenix Command** system.

Like other role-playing games, **Living Steel** focuses on the individual. How he interacts with the world and the world's reaction to him. Each player has a player character whose thoughts and actions are directed by the player. The character's skills, characteristics, and game system dictate how the character interacts with the world, while the player supplies the motivation, drive, and will.

In our style of play, the character represents the motivation, drive, and will of the **PLAYER**. The player does not attempt to disembody himself from his character, rather the character represents the player's own will in the game world. The player's will, drive, and goals become the underlying theme of play and the characters represent individuals in the game world who strive to meet these goals. In this sense our style of play is not strictly role-playing, rather it is a form of Self-Playing.

In this style of play, the player's will is the primary factor and motivation of the character. A motivation and will which does not end with death. Rather, when a character dies, his replacement is a reincarnation of the original. The new character has the same will, drive, and goals as the dead character, and in this sense, the same soul.

This style of play centers around the concept of **Karma**. Karma represents the will and drive of the character, in essence, his soul. Upon death, this Karma is transferred to the replacement character. In this manner, the player's hopes and dreams are not chained to an individual. These hopes and dreams do not die with a character, they transcend death and are embodied by the next character. This frees the player from the overwhelming fear for his character's life. Now it is the character's ideals which are the key. Ideals which transcend death. This does not mean a player must always play the same character. A player is free to create a new character at any time, or run any number of characters each with their own hopes and dreams.

These ideals are the player's responsibility. They should not be petty dreams of conquest or wealth, but dreams worthy of a soul's pursuit. When a character has such ideals, his dreams become bigger than any individual, and he has a goal worthy of the characters for which this system was designed.

Living Steel is not a system in which a character is unkillable. The character is a real person in a real world. The dangers he faces are real and deadly. But his hopes and dreams are also real. Dreams which allow him to put his life on the line for his ideals.

The **Living Steel** combat system is very real. Combat is a brush with death, terrifying, real, and brutal. Yet this realism is the key and strength of the system. It makes the playing experience more satisfying, every victory hard won, and every action vividly clear. The character becomes a real individual struggling in a real world. His goals and dreams drive him on, and the adversaries and dangers he faces are powerful and cunning.

Often characters will die, but their hopes and dreams live on. Characters represent the front line of defense, and tool by which the ideals for a better world are won. The struggles they undertake and the dangers they face make their victories and glory real. The cause they fight for, the ideals they defend are the heart of **Phoenix Command**, for as long as these dreams remain intact, the characters live on.

4.3

THE KARMA SYSTEM (OPTIONAL)

This chapter introduces the concept of **Karma** and reincarnation to our role-playing system. What this means to the player character will now be discussed.

When a character dies, his replacement is a reincarnation of the original. The replacement is a unique individual yet has the same hopes and dreams. His soul carries the same purpose and drive. What this means in role-playing is that the player must provide a focus and goal worthy of this soul's pursuit. An ideal and dream to which this spirit strives. This could be the pursuit of honor, chivalry, glory, duty, or justice.

Once the player has established his character's Karma, he should try and stick to this **Karmic Path**. In the pursuit of chivalry, the character should strive to live a life a model to his dreams. Often this will mean he will be called upon to put himself at risk to defend his dreams. It is in these situations that his will and soul are strengthened. This strengthening takes the form of a **Karmic Award.** A Karmic Award is given to a player who upholds his dreams in the sight of danger or adversity. These awards mean that a character who is pure in his approach to the world will grow in power and capability.

A character's Karmic Award is used to increase his **Characteristic Point Total (CPT)**, (Section 1.2), which in turn determines his characteristics. Normally the CPT is the sum of four six-sided dice plus 48. When using the Karma System, the CPT is the sum of four six-sided dice plus 48 plus his Karmic Awards. This means a character who has 3 Karma Points has a three point bonus when determining his characteristics.

"The truth shall bind and beat you."

Advertising Slogan

Free State Radio

We will now discuss the amount of Karma to be awarded when a character follows his Karmic Path. According to many thoughts on Karma it is common for a spirit to undergo many incarnations to reach perfection. This suggests that a character should gain no more than 1 to 3 **Karma Points** in a lifetime. If this seems miniscule, remember that in this system a gain in Strength of 4 points for instance, can change an average man into one of truly heroic strength.

Just because few Karma Points are awarded in a lifetime does not mean that awards are rare. It would not be satisfying for players if they could not see fairly frequent rewards for following their chosen Paths. Instead of making Karmic acts rare, we suggest that the Gamemaster make the situations for Karmic acts fairly common, but only award some fraction of a Karma Point for each act fulfilled. Whenever a character eventually accumulates a full Karma Point he may adjust his characteristics. A note of caution is required, the Gamemaster should strive to maintain the concept of a lifetime's Karmic Awards amounting to 1 to 3 points. Characters too easily gaining awards will rapidly destroy the game concept and playability. The following are examples of Karmic Awards.

Example:

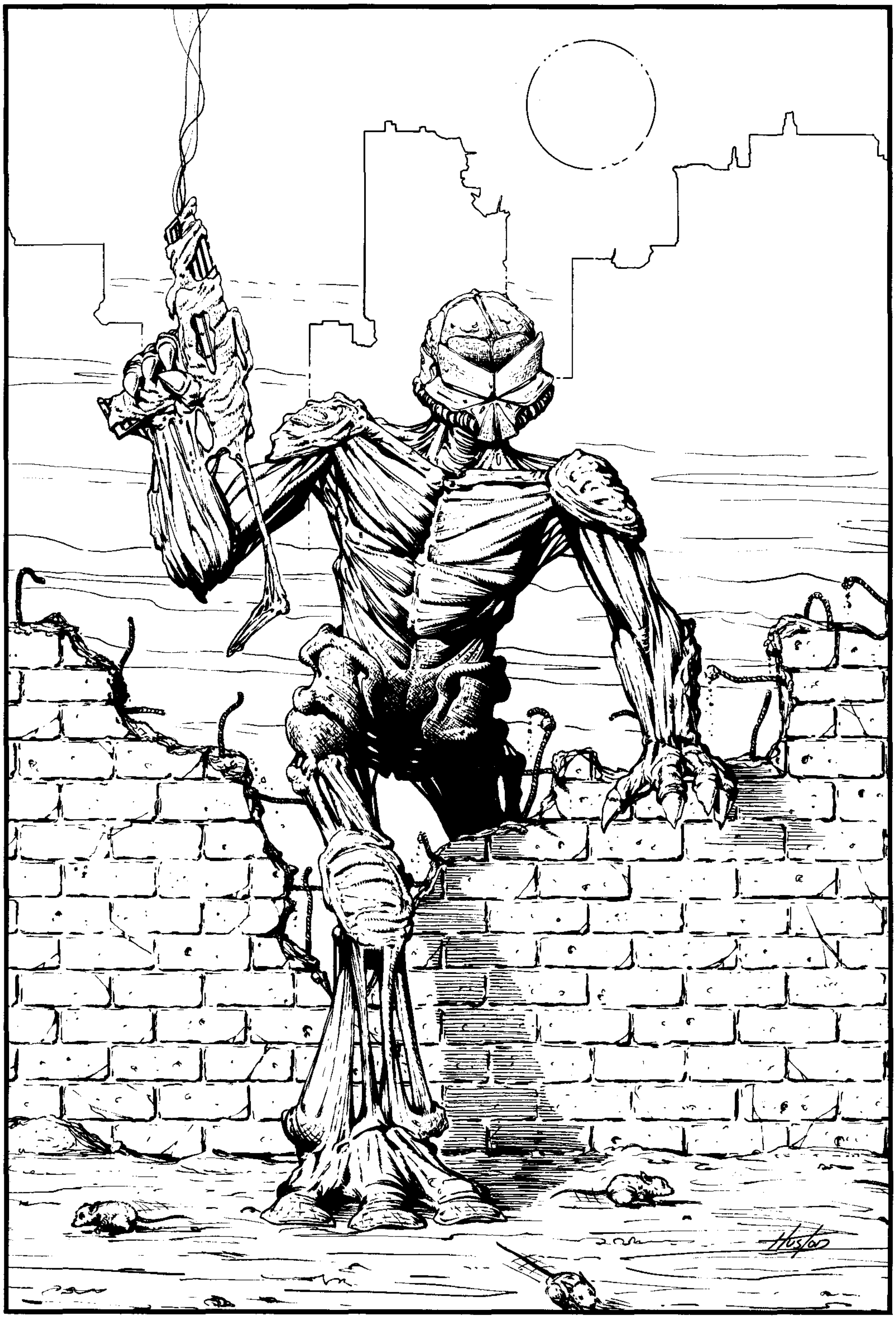
Randolph has chosen Honor as his Karmic Path. Randolph has been in military service most of his life and his leadership and command abilities have promoted him the level of Section Leader. Assigned to border patrol, his unit frequently saw action protecting outlying towns. In one of these actions he gave his word to defend an outlying town should they defect to his side and depose the enemy forces garrisoned there. They revolted, deposed the enemy, and eagerly awaited reinforcements to deter enemy counterattack. Randolph's unit was ordered to instigate this action but he was not told it was a diversion. His leaders had no intent to reinforce the village nor waste valuable troops in that remote region.

When told to abandon the town as enemy forces massed for a counterattack, Randolph ordered his men to withdraw as ordered. Knowing that to keep his personal honor he must not break his sworn word, Randolph remained with a few of his faithful followers. By putting himself in danger and fulfilling his sworn word, Randolph is awarded .1 Karma Points.

Realizing his position was hopeless, Randolph organizes the evacuation of rebels and their dependents. Remaining with a handful of volunteers, he was killed in a holding action to buy time for the evacuation and receives .1 Karma Points in a death boon for this honorable act.

Reincarnation and Karma Points

When a character dies, his Karma continues. Upon death a replacement character can be generated using the rules of Chapter 1. The replacement character's Karma Points are rounded down to the smallest whole number at the start of play. Fractional Karma Points won in the past life are lost in reincarnation. As an example, consider Randolph who had 2.5 Karma Points at the time of his death. His replacement character would have 2.0 Karma Points at the start of play and his Characteristic Point Total (Section 1.2) would be the sum of four six-sided dice plus 48 plus 2.



Spectral Major Warrior

"The lessons of our first encounter with Spectrals were costly..... paid for in lives."

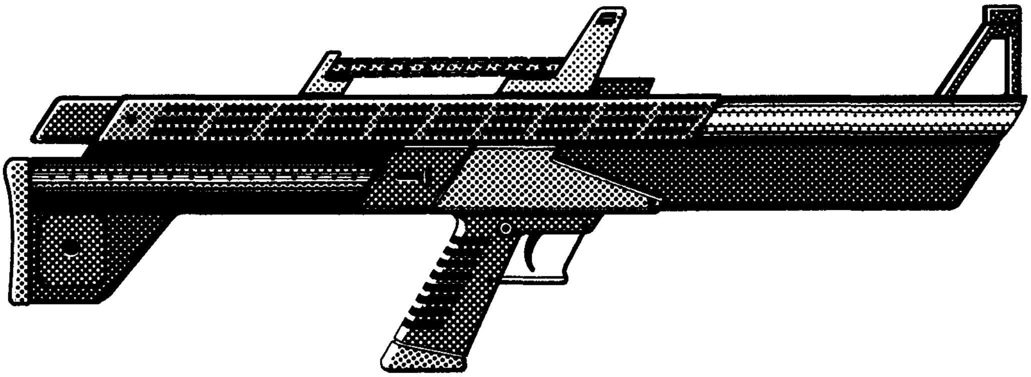
"For one, the Spectrals had a battery of senses that allowed them to see through walls."

Jason

4.4

RESIDENTS OF RHAND

Before we go into the details of how the player characters interact in the world, we will bring the player up to date on the conditions on Rhand following the Spectral invasion. This situation is most easily understood in terms of the peoples who have survived the invasion, for they are the forces the characters must learn to interact with.



SMPGL8: Slivergun—Grenade Launcher

"Even now on the eve of election day, the campaign battle is undecided. But inside sources say Generalissimo Puerco's forces have a strong lead holding 26 of the 31 registered ballot stations."

Free State Radio

The following describes the conditions, history, and motivations of the major groups of peoples and aliens on Rhand. From these descriptions the player will have a better grasp of the conditions on Rhand, the forces at play, and the motivations underlying their actions.

These groups are described on the following pages to aid the Gamemaster in planning scenarios. Details of military forces is given in Section 5.11, while the **Troops and Enemies Description Table (10)** shows typical values for members of any given group. The Gamemaster should design leaders of these groups using Section 1.6.

Imperium

The Imperium is by far the greatest single power in known space. Its interests are vast and impact every facet of human existence. Backed by a highly trained and well equipped Starforce, the Imperium maintains the dominant role in interstellar trade and commerce. All major trade routes and sale of advanced technology are regulated by the Imperium. They are the backbone of the Starcaste system and the strength about which the Starguild is united. The Imperium was established to dominate the affairs of the new colonies and to ensure that the mandates of the Starcaste were enforced.

On Rhand, Imperial forces were not the dominant power. Trident, Rhand's discoverer and founder had complete control of Rhand's development and resources. As Rhand was not an industrial planet and had little trade and shipping, the Imperium had little excuse to intervene. Trident's inviting a number of high-tech specialty companies to Rhand and moving its base of operations there, stimulated Imperial scrutiny. To back Imperial requests for disclosure of Rhand's affairs, an Imperial Guard strike battalion, one of the most powerful forces in known space, was sent to Rhand. A showdown would have been inevitable, but was pre-empted by the Spectral invasion.

During the invasion Imperial forces efficiently and quickly dispersed by Squad to maximize unit survival following the anticipated Spectral bombardment. Most units dispersed into remote regions far from likely ground targets.

Imperial command knew the invader had only one spacecraft. Their ability to counter this vessel was hampered by the destruction of Rhand's ground based deep space tracking and communications system. The sabotage took place shortly before the vessel entered Rhand's space. This left Rhand with no interstellar communications or deep space radar.

The dispersal of Imperial troops minimized their losses from the Spectral bombardment. The Spectrals launched over 600 strikes destroying all key military installations, deep space centers, starfleet facilities, and high-technology industrial centers. But before complete destruction of Rhand's facilities and power system was complete, their ship was destroyed. The Imperium is at a loss to explain this, but grateful the bombardment fell far short of totally devastating Rhand. Imperial dispersion inadvertently protected most units from infection by the Spectral viral attack, and as a whole, Imperial forces came out of the invasion largely intact, but scattered.

Following destruction of the Spectral ship, Imperial command units rallied with the Imperial Guard strike battalion. This meeting was to lay out plans for Imperial conquest of Rhand. The Imperium blamed Trident for the sabotage of the deep space tracking system preceding the invasion and felt the spacecraft might also be a Trident vessel. At this time there was little information concerning the Spectral attack. No Spectral forces had been seen, and except for unconfirmed radio reports of alien ground forces operating in the southern hemisphere, there was no report of alien contact. The reports from the south were dismissed as part of the overall Trident deception plan. The Imperium was convinced Trident forces were responsible for the attack and planned to retaliate.

The Imperial command units were laying out their plans when they were attacked and almost totally destroyed. A few Imperial troops escaped, but the Imperial command elements were lost. Personnel who escaped will give conflicting and unclear accounts of the brief action. Some will state they were hit by heavy power armor, some say it was unarmored rebel fanatics, while a few swear they saw Dragoncrest™ and Spectrals.

"Today is election day and we encourage all citizens to vote NO with the weapon of their choice."

KVSR Radio

"The voice of anarchy"

The end result of this defeat is the inability of Imperial forces to rally. Their command structure has been shattered and units in the field are now striking out on their own. After two months, many feel no reinforcements are coming and most are looking out for themselves. Most have discarded the strict military code and structure they embraced before the invasion and resemble common mercenary units. They don't like the idea of rejoining higher command and are using their new found freedom, military training, organization, and equipment to set themselves up as conquerors of the apocalypse. A few units are still trying to rally and assemble a cohesive force, but these are in the minority. Until there is again a strong force operating in Rhand who can establish discipline, these units will continue to enjoy the life of conquest and plunder.

Trident

Trident is a senior member of the Starguild whose position is secured by its sole possession of the secrets of teleporter technology. Originally an arm of the Imperium, Trident was the Imperium's Research and Development department, which originally developed advanced Gate Drive. This was by far the most efficient means of interstellar travel, and secured the Imperium's domination of known space. Shortly thereafter, the Starguild, fearing growing Imperial power, forced a split between this Research and Development branch and the Imperium. The split marked the first independent formation of a company within the Starguild in over 100 years and gave birth to the Trident corporation.

Since the split, Trident has become a powerful and independent force. Continuing its policy of advanced research and exploration, Trident research probes were the first to discover Rhand. Since then, Rhand has consumed the majority of Trident's assets, the entire Research and Development department moving to Rhand.

"We are pleased to announce that Generalissimo Puerco, alias Jonathan Sunshine, alias Ronald Reasonable, alias None Of The Above, has won the election by a unanimous vote."

Free State Radio

"The voice of reason"

On Rhand, Trident had a Starforce far larger than required for this remote world. Trident's best troops were stationed on Rhand, and they were by far the most powerful force on planet. The purpose of this force, and the goals of the research teams, were never disclosed. Tension between Imperium and Trident indicates it was military in nature, something far beyond Trident's commercial license.

The inability of the Imperium to disclose Trident's affairs was due to the efficient Trident Law Enforcement Agency. This agency was large, well equipped, and highly trained. Trident's justification for this large force was the security and safety of the large tourist population. The Imperium knew better, for this agency was the match for even the best Imperial espionage units. The Imperium, failing in every effort to break Trident's security by clandestine means, was on the verge of open military confrontation in the days preceding the Spectral invasion.

Trident military and Law Enforcement teams were scattered about Rhand on full alert before the invasion. They were expecting an Imperial show of force, not an all out invasion. Trident's Starfleet was caught offguard, and like the Imperial Starfleet, destroyed. Evacuation of Rhand's civilian population was barely underway when the ORCA system was attacked.

Today, Trident forces are scattered about Rhand trying to regroup with their civilian population. Many feel the Imperium has attacked Rhand, and those unaffected by the viral attack are now trying to get back to their families. Unlike Imperial forces, Trident forces had their families and dependents here. This was not just another remote field assignment, but a place they were making their home. Most units find their members splitting off in various directions. Often this led to conflict over possession of the few grav and ground vehicles. Tension, breakdown in overall command, and radioed pleas for help from communities all over Rhand led to a scattering of Trident forces. Today they are no longer military units but men and women traveling in groups towards a mutual goal, their homes.

Trident Starcaste communities were scattered about Rhand in self contained complexes. Typical population of these centers was 50 thousand Starcaste and 200 thousand Bondsmen. These communities were hit by the Spectral bombardment and viral attack. Most were consumed in the ensuing violence. Today they are largely abandoned, their former population roving bands of marauders and refugees seeking food and shelter. A few managed to overcome the destructive elements following a bloody civil war. Now, badly weakened and running short of supplies, they are trying to turn away marauding bands from other complexes.

Trident's RMBK plant housed the advanced research and development department. It was under the tightest of security and was completely leveled by the Spectral bombardment.

Scan Technologies

Scan Technologies is another senior member of the Starguild. Specializing in medical services for Starcaste and Landcaste elite, Scan was invited to Rhand by Trident supposedly to serve the large tourist population.

Scan established itself in typical fashion, with a large security force protecting and isolating its facilities. This force was of superior quality and a number of Scan facilities were restricted even to Imperial scrutiny. These restricted facilities were backed by Trident forces, but the nature and purpose of the collusion was never determined.

Scan communities were isolated enclaves of about 50 thousand Starcaste and 250 thousand Bondsmen. They were not hit by the Spectral bombardment and developed a vaccine against the Spectral viral attack. As a result they were able to secure most of their Holdings. Their communities specialized in medical services, but had little mechanical manufacturing capability. They were service oriented, not production. Only three of their centers had advanced manufacturing capability. These were their advanced research facilities and they were devastated by the Spectral bombardment.

While Scan facilities lack mechanical manufacturing capability, they have sophisticated chemical and drug processing equipment. It was far easier to manufacture and keep medical supplies in controlled storage on Rhand than to produce them elsewhere and transport them here. This capability is now playing a key role in Scan's new position in the apocalypse. As long as their equipment holds, they can produce medical supplies. These supplies will always be in demand and represent power.

Today, Scan is perhaps the single greatest power on Rhand. They have secured their facilities and power links and today use their dominant medical position as power. To maintain this dominance, Scan security forces are seeking out lesser Landcaste and General Medical Facilities to either capture or destroy them. Once they hold a monopoly on the medical industry, their position will be secured. For details, refer to the Medical Aid mission of Section 5.12.

"In a surprise move to show that he too is making sacrifices, his excellency El Puerco has blown up his presidential palace."

Free State Radio

"All truth all the time"

Subcons

Subcons are minor members of the Starguild. They were present in numbers on Rhand serving its power generation, communications, and trade industries. The Subcons varied in size and rank but all maintained the distinction which made them Starcaste. They had Stardrive technology and a Starforce. What made them minor members was the fact they had to pay the senior members to maintain this technology and could not produce it themselves.

Subcons ran small manufacturing and support facilities throughout Rhand. They had small communities centered around their operations. Subcons were responsible for producing many of Rhand's Starcaste technology items. Items only the Starcaste could produce or service. This ranged from grav vehicle fuel to Power Generators and Power Relay Systems. As Subcons manufactured items using technology available only to the Starcaste, their plants and communities were under tight security. Most Subcon personnel grew up with this lifestyle, and to them, it was natural to live in small communities behind a wall of security. They were protected, isolated, and enjoyed a rich life style.

All this ended with the Spectral invasion. Subcon communities came under heavy Spectral bombardment. As these communities were densely packed around their operations to minimize their security zone, few civilians survived the bombardment. Those who survived found their world shattered. Today Subcon survivors join the ranks of refugees and marauders. Few of their communities survived the bombardment, and those that did, find their ranks torn by Visser elements.

Subcon Starforces have largely given up trying to hold their communities. They have broken up into small survival groups and are moving out to find safe haven.

Surrogates

Surrogates were once members of the Starguild, but have since fallen from grace. Nevertheless, they have managed to maintain some Stardrive and Starforces. They are outcasts and have no secure planet or base of operations. Ranging from pirates to smugglers to mercenaries, Surrogates exist as tools of the Starguild. While the Imperium and Starguild in general does not allow intercompany feuds, there are no regulations concerning Surrogates. Surrogates are used for the Starguild's dirty work. In exchange, they receive Stardrive maintenance and repair.

Surrogates are hungry predators, eager for a job. They are opportunistic, independent, and well armed. While members of the Starguild have been theoretically at peace for decades, scores of battles take place each year, one company's forces against another company's Surrogates.

Most Surrogate communities were small, with 4-8 thousand Starcaste and no Bondsmen population. Strak and Varsha served as their domestic work force. Surrogate communities were mobile and had a Spartan life style. Most civilians were members of the militia and almost all were trained with weapons.

Surrogates were above the Landcaste and Bondsmen yet not full members of the Starguild. They are an independent and harsh people accustomed to life as a refugee. They grew up knowing they would have to fight.

Most Surrogate enclaves had no high-tech capability and were spared Spectral bombardment. They were remotely located and most were not affected by the viral attack. Today, their communities are rising from the carnage as dominant powers. They are organized, disciplined, well armed, and have the best manufacturing capability remaining on Rhand. This manufacturing capability does not include high technology, but they are well equipped to produce mechanical parts and tools. As much as possible, Surrogates tried to be self sufficient. In general, much of their technology and capability is right out of the 20th century. This made them primitives in the eyes of the Starguild, but allowed them to maintain their independence. To embrace the needs of high technology meant embracing the Starguild, something the Surrogates tried to avoid.

Today, this Spartan life style gives them an advantage. Their machinery and civilization is crude by Starguild standards, but easily repaired. It does not depend on fragile high technology. Long after Starguild machinery has broken down, Surrogate equipment will be functioning.

"This is not a coup, Parliament still makes all the decisions. We're just here to make sure they make the right ones."

Brandy Charlaton

Station Manager KVSR

Surrogate groups control what might be the last mechanical and tooling capability on Rhand. They recognize this and realize that they have only to hold out long enough for the other group's high-tech equipment to break down to come out on top. Their clever leaders are keeping a low profile. Right now they cannot stop a well armed Starforce, but given a few years, that Starforce will have little high-tech equipment and they will be more than a match.

These Surrogates are major forces on Rhand. Many don't know it yet, but a few are beginning to realize their new status and are moving out to establish themselves as rulers over the weak, soft peoples who for generations put them down. Some of these Surrogate groups were hit by the Spectral viral attack. These groups are often the focus of a Spectral Pathfinder (Section 6.3), for these groups are organized, have a strong sense of us versus them, and a long term grudge to settle. Surrogate Visser groups are possibly the greatest destructive element in Rhand today.

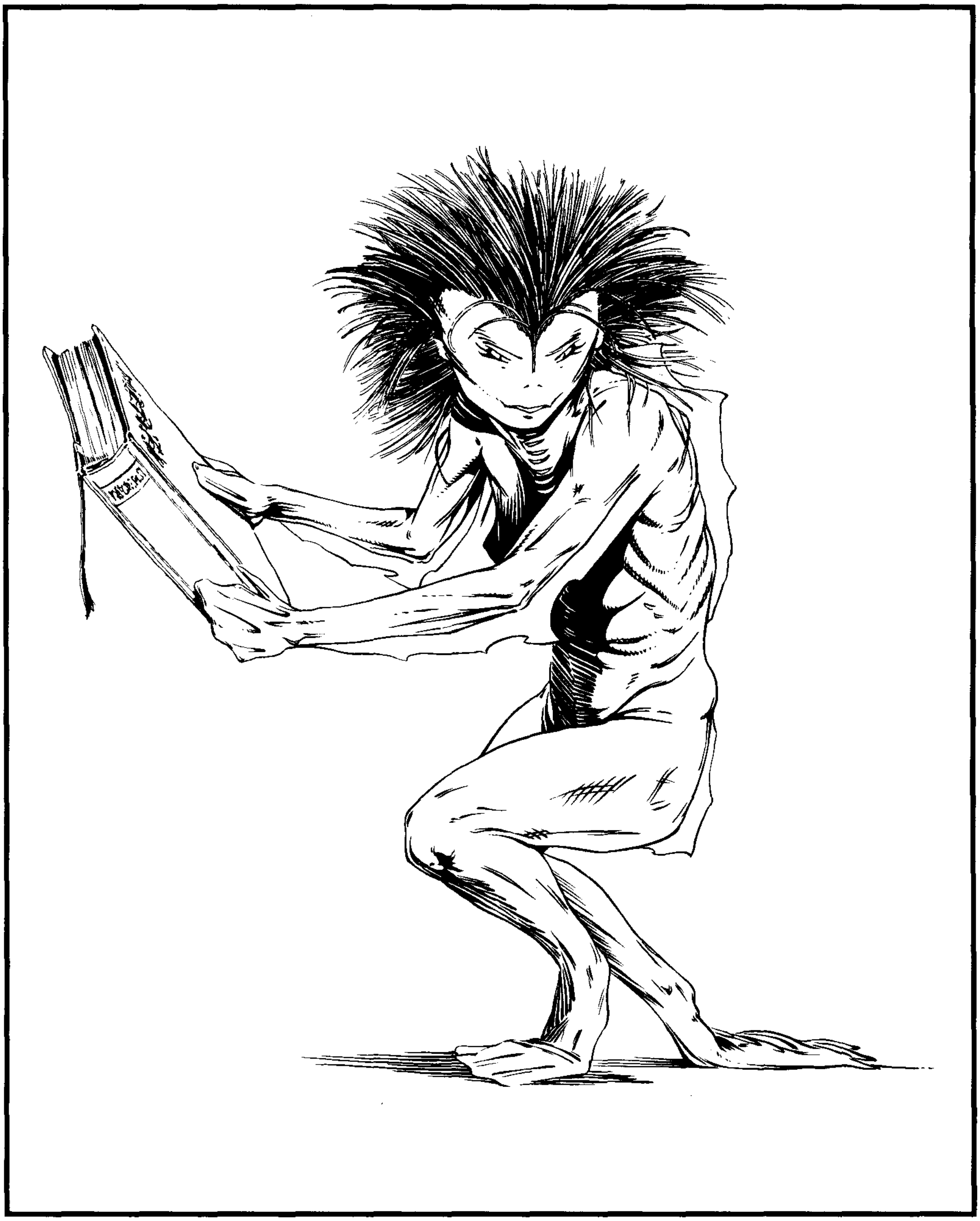
Landcaste

The Landcaste are a caste of people who lack Stardrive, but control the military, economic, and political offices of a planetary government. The Starcaste are concerned only with its own small populace. They leave the running of a planet to the Landcaste.

Rhand was a planet set up for the tourist. It was a planet dotted by resorts. Gambling areas like the Las Vegas strip, ski resorts, and spacious beach resorts covered Rhand's most beautiful areas. These facilities were ideal, perfect, and unblemished by signs of the industry required to support them. The resort's support workers and industry were separated by hundreds of miles. The Bondsmen who worked at these resorts lived in communities completely isolated from the resorts. Their ugly little communities were hidden from sight. Every morning these Bondsmen were escorted to work using the ORCA. They were herded and managed by the Landcaste.

The Landcaste managed Rhand's tremendous resort business. They were the planet's governing agencies responsible for power, water, trade, and transportation. They ran the businesses, kept the Bondsmen in line, and kept their masters, the Starcaste, happy.

The Landcaste lived in their own communities separated from the Bondsmen and Starcaste. Their militaries are composed entirely of Landcaste and are large enough to keep their government in power, while not being a threat to Starforces. They serve a 16 year mandatory military enlistment followed by semi-retirement in management directorships. Following military or law enforcement service, the best Landcaste personnel are given the best directorships. They were rewarded for their military service by being placed in charge of the bureaucracy they served. Their military



Trank

"The Trank are a subject race brought by the Spectrals as builders and technicians. They are incapable of creative thought, and thus crave all knowledge. A library is the greatest treasure trove to a Trank."

Jason

and law enforcement experience uniquely qualifies them for these jobs, for often Landcaste management is more the job of a prison warden than manager.

Landcaste communities were residential communities. They had no industry or manufacturing in their midsts. They were exclusively residential. Bondsmen support facilities filled the service roles within these areas, but these Bondsmen lived outside the area.

Landcaste communities were spared Spectral bombardment, but hit by the viral attack. Today these communities are largely abandoned, there being no industry and little food supply. Landcaste survivors have joined the ranks of refugees and marauders. Most are attacking the Bondsmen communities they formerly managed. The Bondsmen communities had industry, food stores, and food processing plants. These are now a major commodity.

"Today's forecast calls for heavy contact along the northern outskirts, strong probes throughout the neutral zone, and scattered artillery barrages throughout the evening."

KVSR Radio

"All nukes all the time"

Landcaste military and law enforcement personnel were widely dispersed before the invasion. As they were still serving their 16 year enlistments, they have been on constant tour. Constantly relocated, forever reassigned to new units, they were not allowed family or close relations. Those luxuries are for retirement. The Landcaste are loosely bound units unfamiliar with close friendships, relations, or teamwork. Their enforced life style makes them shallow, selfish, and self centered. After the invasion, most clung together for mutual protection. Having no families or relations they have survived as units and are moving to establish shelter and security. Being armed and having military training, they easily dominate the refugees and Bondsmen they encounter. They however, lack the cohesion and team spirit to take on a disciplined and motivated opponent.

Tourists

Tourists on Rhand are Starcaste and Landcaste elite. They are men and women of influence and power who have traveled from all parts of known space to relax and enjoy this beautiful planet. Tourists travel with a large entourage which includes their servants and bodyguards.

During the invasion many of Rhand's resorts and tourist facilities were too small a target for Spectral bombardment or viral attack. Many have come out of the invasion largely intact. Complexes whose local time corresponded to business hours when the Spectrals initially attacked and destroyed the ORCA satellites had Bondsmen workers, Landcaste managers, and Starcaste tourists there. After the invasion many of the Bondsmen and Landcaste left the resorts trying to get back to their families. Many groups of tourists also fled. Conflicts and fighting over the facility's ground vehicles was common as various groups tried to get to the nearest Spaceport. The smartest probably stayed behind. They have tried to organize themselves and prepare for the eventual attack by outside elements. Many of these resorts were well stocked and will be the targets of any force which can get to them.

Resorts whose local time was during off hours at the time of the invasion will be largely populated by off hour workers and a few tourists. These facilities are currently held by these people, possible after a few internal power struggles. These resorts are prime targets for outside groups seeking food and shelter. Most are well stocked, and because of the off hour crowds, sparsely defended. At many the first signs of cooperation between Bondsmen, Landcaste, and Starcaste is developing. As they become aware of the conditions in the world, they realize the blessings they have and the mutual cooperation they need to hold them.

Many tourists were not caught in the large tourist attractions and facilities. They were in small groups camping, enjoying a secluded mountain cabin, or exploring Rhand's virgin wilderness. Now these groups find themselves isolated. Many included Bondsmen guides and workers. Most groups will try and ride it out. They will stay put as long as the food and hope for rescue holds. As time passes and the food runs low, they too will have to strike out and join the thousands seeking food and shelter. At first the Bondsmen's actions in these groups will be governed by the assumption that rescue will come and the status qou maintained. As this becomes less likely, they may reevaluate their status and position in the group. Many groups have worked out their social problems and become a close team. Their lives depend on each other, and they have just begun to face the challenges that lay ahead.

Bondsmen

The Bondsmen on Rhand were specifically selected for this pleasant planet. They were selected for their intelligence, compassion, industriousness, and complacency. Rhand was to be an ideal resort, and it wouldn't do to have troublesome servants.

Today, Rhand's Bondsmen are of three types; Refugees, Rogues, and Newlords. Refugees have chosen to remain isolated and hidden trying to survive in small groups and communities. They have no desire for conquest and would be content to simply be left alone. These groups contain armed members, but as they are not militant in nature, their best defense is to remain hidden.

Rogues and Newlords are former Bondsmen who have used their freedom to establish themselves as masters over other Bondsmen or captured Landcaste. Rogues and Newlords are identical in purpose and differ only in organization, Rogues being less well armed and organized. Rogues typically stake out a territory and its populace and control the regions resources. Newlords are better organized and generally control one or more Power Relay Station. Commanding power they exact tribute from the people around them. They offer a good life to those who take up arms in their service, and an almost feudal society is emerging.

These Bondsmen are survivors of the Spectral bombardment and viral attack. This viral attack destroyed most of their communities with streams of refugees and Visser elements cutting their way out of those centers as the food supply was exhausted. The better organized of these groups struck out to take Rhand's remaining assets of food stores and power stations.

Today, these Newlords and Rogues control much of the countryside with refugees scattered in the hills. Visser elements are common and struggle with these Bondsmen. These forces are roughly balanced, neither having any military training and few highly organized.

As the former Starcaste and Landcaste forces move into these areas, Bondsmen are again having to surrender to the Starcaste and Landcaste military organization. Many are not going down without a fight and these conflicts are destroying what little remains of Rhand's advanced technology.

"Today's travel report . . . . Small arms fire along Route 6 with bursts of heavy machine gun fire. Blast shields are required above 3000 feet."

KVSR Radio

"Hot off the firing line"

Visser

Visser is a term used to describe humans who have been infected by the Spectral viral attack. This attack resulted in Virally Induced Sociopathic Response, a genetically altering disease which permanently alters the chemistry of the brain. The results are a group of people incapable of normal social behavior. Varying from violent, unreasoning individuals (State 12), to those only slightly affected (State 2), this attack has destroyed civilization on Rhand. The Gamemaster may sum the roll of two six-sided dice to determine a Visser's State of infection.

Vissers are drawn from all ranks of humanity, from former Imperial troops, Bondsmen, to tourists. Fully 80% of the population was infected. Vissers are not unthinking animals, they are simply people incapable of handling normal social organization. Within their own ranks they have a social structure. True, it is brutal and untempered by mercy, forethought, or compassion, but they understand the need for teamwork and fear death as much as anyone. Vissers simply cannot handle the strain of dealing with a social setting encompassing a large group. In small groups where each individual knows to fear and respect each other individual, they know their place and function sociably. But place a Visser in a setting in which he doesn't know his place, and you have a struggle for dominance. Often these struggles are bloody, especially if the group is well armed. But once dominance is established you have a somewhat stable group.

The size of the group tends to be self correcting. As the group becomes larger it becomes more destructive. If this destruction cannot be vented on an outside element, it is released internally. The size of these bands depends on the leader's ability to control his members.

A dominant leader will keep his forces in line. He will release their destructive energy on outside elements and reward them with the spoils of victory. Victory and the spoils will attract more Visser bands. These bands will join the tide of a successful leader, and this is when Vissers become most dangerous. Unorganized they are dispersed bands of trouble. Under one banner, they may form a tidal wave crushing everything in their path. Once the tide starts, more and more Visser elements submit to the dominant leader. They are bands who resist civilization and order, but when confronted by a dominant leader with victory on his side, they whole heartedly submit to his leadership. At this point they become fanatics and make dangerous enemies, for they fight with a fixated passion and fury (see Spectral Pathfinder, Section 6.3).

"War is swell."
Chevok
Slozek Commander

Slozek

The Slozek are a Spectral subject race and were used as light infantry. They are carnivores and have neither skill nor capability for agriculture or herding. They are a race incapable of feeding themselves by any means short of hunting or war. Their race has no sexes, but reproduce at an alarming rate. Over-population, combined with a necessity for constant conquest, makes them a belligerent race, bent on enslaving other races. They have an efficient military society and are intelligent and quick. Their intellect is centered around war and is unclouded by concepts of good, evil, morality, or conscience.

During the invasion dozens of Slozek combat teams were landed to capture or destroy key installations. Teams were concentrated in the southern hemisphere and captured the five south polar Power Generators. Before combat teams could be landed in the northern zones, the Spectral spacecraft was destroyed. Since then, the Slozek have been operating on their own. Their first priority will be to establish subservient peoples to supply their food demands. Slozek are not adverse to negotiation, and rumors spread of Newlord and Imperial forces working with Slozek in exchange for power from the southern generators. These Newlords and Imperial forces are actively seeking out anyone with a background in power generation or transmission to work the south polar generators. The Slozek killed many of the Larden technicians in their attack, and are seeking others to maintain those facilities.

Spectrals

There is little information concerning the Spectrals' home or origin. They were first contacted shortly before their assault on Rhand, and what detailed information may have existed was never transmitted to this distant and agrarian world. What is known is that Spectrals have a great hatred of humanity and are completely dedicated to its destruction.

The Spectrals have no individual identity, operating with a telepathic hive mentality at all times. They are jet-black humanoids, possessing neither eyes, nose, nor mouth. Instead they have alternate senses which allow them to perceive equally well in light or dark. They can only be slain by 60 Physical Damage points to the head, and, only Disabling Injuries to the limbs will render those limbs useless. Spectrals are not sensitive to explosive concussion and have a Blast Modifier of 0.1.

To date, four types of Spectrals have been encountered. They come in two basic classes—the blank faced Workers and the facet faced Warriors.

Minor Worker: The smallest and most plentiful of the Spectrals, Minor Workers do most of the labor for the hive.

Major Worker: Differing from the Minor Workers only in size, the obsidian skinned Major Workers handle more difficult tasks and roam further from the hive than their smaller comrades.

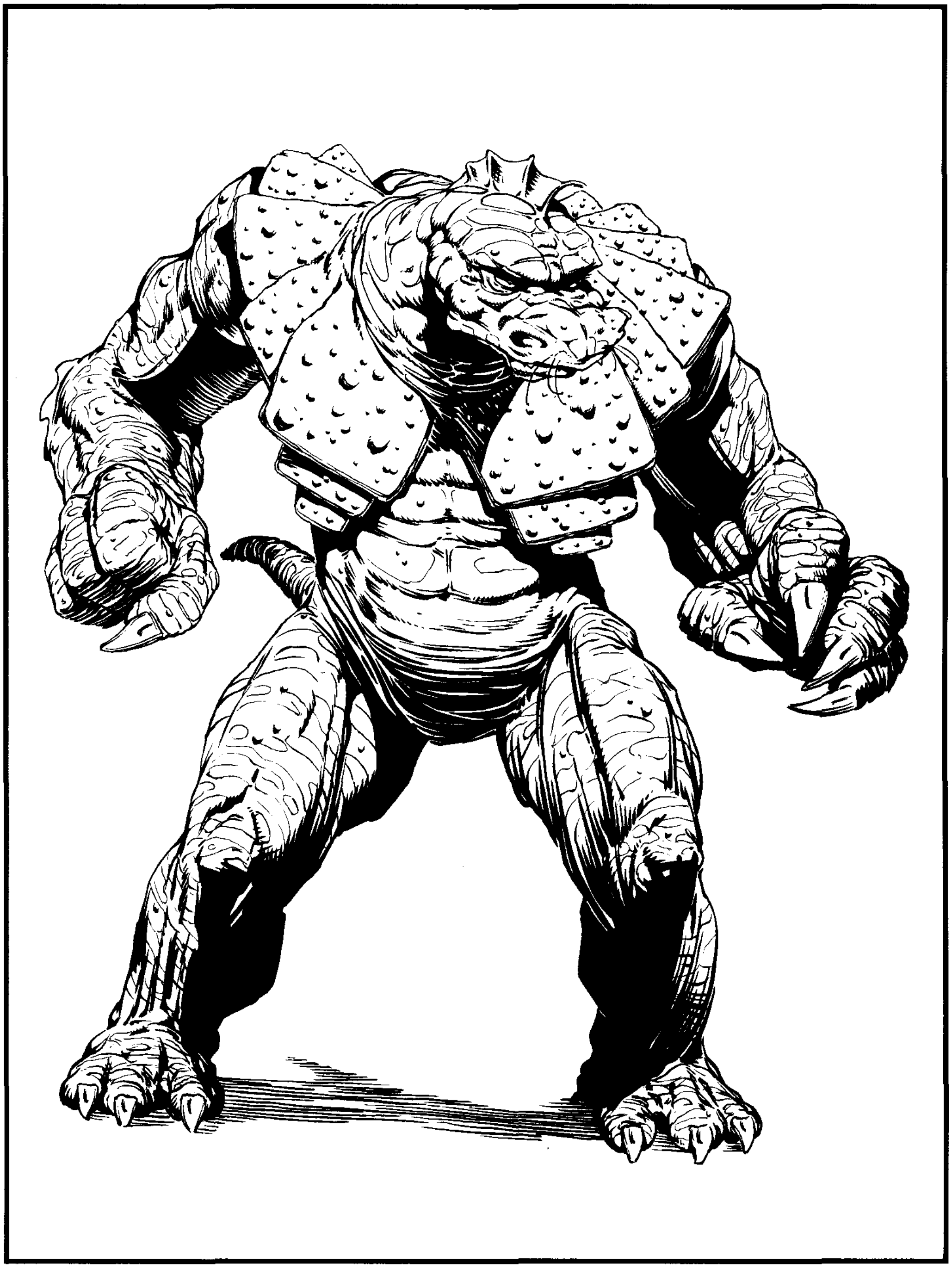
Minor Warrior: These Spectrals specialize in warfare. Their skins are hardened, and their upper limbs are designed for combat. Quick and deadly, Minor Warriors often escort workers outside the hive.

Major Warrior: These Spectrals are designed totally for warfare and their skin is as hard as metal. Fast and possessing devastating strength, they are one of the most deadly beings on Rhand.

For more details, refer to Section 6.3, the Spectral Invasion.

Strak

The Strak are a race conquered by man centuries ago. They were brought to Rhand to provide menial labor and lived with Bondsmen. They are tall (6 foot), thin (140 lb), friendly to humans, and not overly bright. Generally peaceable, they will fight if provoked and are found today living among human groups.



Larden

"Though once subjugated by the Starcaste,the Northern Larden now cling jealously to their freedom, and are more than willing to lay down their lives for it."

Jason

Larden

Larden are race of reptilian humanoids conquered after a costly and long ground conflict which followed the destruction of their cities by Starforces. Their capability to withstand prolonged exposure to high levels of background radiation has lead to their being used to run the planet's Power Generators.

The Larden were kept isolated at the polar Power Generators and guarded by a rotated force of Starmarines. This isolation, leaving only the waste heat of the generators to warm their communities, kept them in check.

Today the Larden hold the four north polar generators, having killed their former guards. They are not friendly to humans and are isolated. To survive, they still maintain the generators and are supplying power to remote Power Relay Stations.

The five south polar generators were captured by Slozek during the initial Spectral invasion. Following the breakdown of Spectral command, the Slozek have maintained control of those generators. Slozek have spared the lives of Larden technicians and are using only nonessential Larden as a food supply.

Varsha

This is a race of small, inoffensive creatures, essentially humanoid and almost entirely nonviolent. They are friends of humanity and served as domestic workers in Surrogate communities. Varsha are dependent on man and are trustworthy and loyal. Once a Varsha gives his loyalty, they are faithful for life, with generations of Varsha serving the same family line.

4.5

THE ORCA

The player characters on Rhand are faced with an enormous task. They have limited supplies and resources and find themselves surrounded by armed and potentially hostile forces. Yet they possess a distinct advantage, an edge that can make all the difference. They have command of the **Orbital Remote Commuter Access (ORCA)** system. A world-wide teleporter system which was the primary means of transport before the Spectral invasion. The ORCA is the key to the character's mobility, and understanding its timing and limitations is a necessity.

Rhand had the most advanced teleporting system in this sector of known space. This system made near instantaneous teleportation to and from any place on the planet possible. The near ideal climate, combined with the convenience of the ORCA, made Rhand a popular resort planet. Starguild elite came here from all parts of the galaxy to rest and relax. Rhand was a planet devoted to leisure, where hundreds of resorts lay moments away. Moments away for those privileged enough to own an Encoder.

An **Encoder** is a small device worn on the wrist which commands the function of the ORCA. Apart from official use, an Encoder was available only to the Starcaste and Landcaste elite. The working class, or Bondsmen, were not privileged to its use. An Encoder was a licensed and guarded item. Its theft was a capital crime, for it was one of many items separating Bondsmen from the Starcaste.

Today, the ORCA is no longer the exclusive privilege of the Starcaste. Now it is in the sole hands of the Alphas and Ringers. Unfortunately, the ORCA did not survive the Spectral invasion intact. Initially made up of four orbital satellites, now only one is operational, and even it is damaged and under limited access.

Following standard procedures for damaged operation, only the Encoders of the original Alpha Teams can command its function. These Encoders are the essential items for the mission teams, for they make it possible for them to respond to need anywhere on the planet.

Encoders and Thralls

These devices focus the powers of the ORCA teleporter. On a mission there is one Thrall for each Team Member or large piece of equipment, and one Encoder. The **Encoder** is a metal band which the mission leader wears on his wrist, while the **Thralls** are chains of various lengths which are worn as wristlets by Team Members or are wrapped around equipment. Thralls are slave devices tied to the operation of a specific Encoder and were originally used for teleporting servants and equipment.

The Encoder commands the powers of the ORCA and allows the Team to teleport to the mission site and back to base. The coding and coordinates required to set the teleporting destination are secrets known only by a select group at base. In the field, the Encoder will teleport the Team only to the mission site, but will return the Team to base from any location. Return to base occurs at the touch of a button. At that moment any person or thing encircled by one of the Encoder's Thralls returns to the preset base. Even Team Members who are separated from the main body return, as long as they are within range of the teleporter.

An overriding factor in the use of Encoders and Thralls is that they only function when the Team is within reach of the teleporter, as described below.

ORCA Teleporting Restraints

Originally the ORCA provided near instantaneous teleporting to and from any place on the planet. The time delay was typically ten minutes and never more than five hours. Today, with only one damaged satellite, teleportation to or from a given location is possible only during one six hour period each fourteen days.

The ORCA satellite is in polar orbit about Rhand. It makes an orbit over the north and south poles each ninety minutes. During the course of this orbit, Rhand slowly spins underneath. In this way the satellite comes overhead of any given location once each fourteen days. It rises from the south and sets in the north, visibly arcing across the sky in the course of ten minutes. Ninety minutes later it rises again sixty miles to the west. Only when it is visible in the sky during these ten minute periods can the teleporting system be used. There are four such teleporting periods separated by ninety minutes each fourteen days.

It is during these teleporting periods that the mission Team is sent to the mission site. Once the Team is dropped, they have six hours to operate under cover of the ORCA. Each one and one half hours there is a ten minute period in which they can retreat or call in reinforcements. If they stay at the site more than six hours, and therefore after the fourth pass of the satellite, they are on their own for the next fourteen days.

A more detailed description of the ORCA and its capabilities is provided in the Gamemaster's Section 5.13.

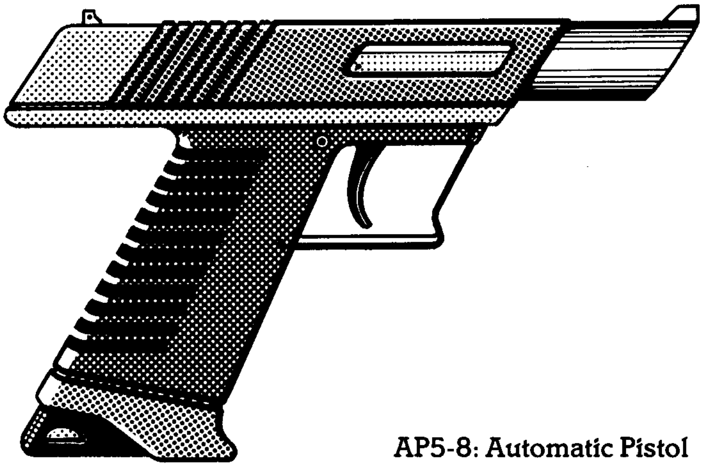
"Clear for Spinward. Lighten your load and give all your frills to the homebound."

Niki

Going Spinward happens when a Team stays in the field after the 4th and last pass of the ORCA. They are stuck in the field with no ORCA coverage, no retreat, no supply, and no reinforcement for 14 days.

"You are cleared for Spinward. Good luck. Catch you in 14."

Lieutenant Andy Brennan



AP5-8: Automatic Pistol

5

MISSIONS AND ADVENTURES

This chapter outlines a number of ways the game may be played. It is intended for the Gamemaster and provides rules by which adventures may be created, enemy forces generated, and campaigns organized.

5.1

GETTING STARTED

This section is devoted to the Gamemaster. It will be his responsibility to keep the game moving, to generate the situations in which the characters can find adventure and intrigue. To do this, he will need to develop a feel for his world, its people, and the forces surrounding the characters. In the beginning this may be a little hard, but as play proceeds he will find the players generate their own actions. The world begins to run itself, for the players will constantly generate action and conflict.

To get started, we suggest taking troops from the **Troops and Enemies Table (10)** and running a few fire fights. This will give the players an opportunity to become acquainted with the combat system. As this combat system is unique among role-playing games, it is important the players get a feel for it before playing with real characters. A mistake on the battlefield can be quite fatal. Better to learn how to survive in training sessions without risking vital characters during real play.

The Setting

There are numerous ways of running a **Living Steel** game. We will outline three possibilities. One, the Gamemaster can start play about one year after the Spectral invasion and run the game as a series of missions and adventures in which the characters strike out from their home base to help others in need. Two, play may start immediately after the Spectral invasion and be run as a campaign. Or three, the Gamemaster may start his own adventures in his own setting.

What follows are suggestions for using the background information of this system for game play on Rhand, but this structure is equally suited for adventures on any world. The **High-Tech Weapon Supplement** presents equipment and social structure of other worlds in the Starguild, while the Historical Timeline of Section 6.4 presents many interesting time periods and conflicts. The Gamemaster is free to play in any time and place, in a world from our future history or one of his own design. Role-playing is limited only by the players' imaginations. What follows are suggestions and ideas which may help the imaginative process begin.

5.2

THE MISSION AND ADVENTURE SETTING

This section discusses a **Mission and Adventure** style of play. This style is well suited for spontaneous games in which new players may be easily introduced. This style of play is the most flexible and does not require a set group of players who meet on a regular basis.

This setting assumes play starts about one year after the invasion. At this time the characters have carved out a holding. The immediate needs of food, shelter, and a safe base of operations have been won. The character's goals are to reach out and help others in need, protect what they have won, and establish contact with other Alpha Teams scattered on Rhand. The initial stages following the invasion are over. Constant vigilance and missions fill the character's lives, but there is a safe haven to return to, a place to train, rest, and heal.

The Gamemaster can use the Mission Generation rules of Section 5.3 to keep the game moving. He should try and interweave these missions giving them greater scope and purpose. A Recon mission will disclose information leading to a second mission; possibly a rescue, preemptive strike, or need for further reconnaissance. In this way the game will not be a series of unrelated assignments, but a series of actions through which a campaign may be built.

For this setting, assume the Alpha Team has access to a field hospital and electrical power. Up to now they have kept a low profile. They find themselves surrounded by armed and potentially hostile forces. These forces range from former Imperial troops to ever present Visser bands.

The Team currently rent power from a group of Newlords 250 miles away. The Newlord group is large and becoming more and more powerful. They are expanding their sphere of influence and are no longer a remote power content with minor tribute. In recent months, their patrols have become increasingly active. Where they find smaller groups, they move in and seize control. So far, they have not brought in enough strength to confront the Alpha Teams, but that will only be a matter of time. The Newlords don't know a great deal about the Alpha Teams. They know they are well organized, but don't know about the Ringers nor that they possess high-tech equipment.

The Newlords command power distribution to the Alpha Teams. This power is essential to the Team and is of vital concern. A starter mission might be a deep recon of the Newlord's encampments. The Team will have to keep a low profile. No one knows they have command of the ORCA teleporting satellite. This secret can make the vital difference should it ever come to combat. Once the Team has a better understanding of these Newlords, they can choose their course of action. The Newlord may be open to negotiation, he may be totally unreasonable, or he may be under attack and in need of aid. In either case, protection of this vital power link is important to the Team and a first step in rebuilding civilization.

5.3

MISSION GENERATION

A character's life is one of action and adventure. Constantly on call, he may be required to perform a mission of attack or defense at any time. These missions form the backbone of a defense grid which protects the essential elements of civilization.

Each game month the players should assign their unwounded characters to active duty with either Line, Crack, or Elite forces. Characters assigned to Line units are at the least risk, those assigned to Elite forces at the greatest risk. Recognizing this, Elite forces receive bonuses, prestige, and priority in skill training and medical aid.

Once the players have formed a Team and chosen a duty assignment, the Gamemaster enters the **Mission Assignment Table (12A)** cross-indexing a 00-99 random roll with this duty assignment. If the result is a Mission entry, the characters have been assigned to a mission that month. If the entry is blank, the characters are not called upon and are free to remain at base.

In this way, the characters assigned to missions each game month are determined. The number next to the Mission entry is the mission **Risk Level** and varies from 1 to 10. The greater the Risk Level, the greater the danger.

"Suit up boys, we're Point on the Dragonstar."

Lance

A Dragonstar is a fighting formation which uses the ORCA to transport the combat team into an enemy position. Each person is responsible for a given field of fire. The Pointstar is the first in. They are responsible for taking accurate coordinate readings for subsequent assault teams.

"This will be a hot drop. Hold your positions and blast anything in your field of fire."

Marcel

Example:

The players jointly decide to volunteer for Crack duty assignment. The Gamemaster now rolls a 00-99 number and enters Table 12A. A 66 is rolled indicating they are called upon to go on a mission of Risk Level 3.

Once the Risk Level is determined, the type of mission the Team will perform can be selected by the Gamemaster or determined randomly on the **Mission Type Table (12B).**

The Team now knows the type of mission they must perform and the relative danger they face. If they feel outmatched, characters not assigned to a mission may volunteer to join them, or the Gamemaster may assign non-player characters (NPCs). These non-player characters can strengthen a Team or provide special abilities such as a scout, guide, or medic.

To help the players form and prepare a mission Team, a brief description of the basic Mission Types follows.

Tactical Assault

An offensive attack against an enemy's main position or forces. Its purpose is to break up troop concentrations, destroy equipment, and inflict maximum damage. These mission are heavily combat oriented and are generally used only after Disruption missions have failed to counter enemy concentration. Missions attacking targets or enemy units away from their main concentration points or bases are Disruption missions. Tactical Assaults are strikes against the enemy's main body or stronghold.

Rear Guard Action

Heavily combat oriented missions in which the Team is called upon to defend a primary target or perform a Holding Action as part of a larger defensive or offensive battle plan.

A Defensive Rear Guard is called in when preemptive strikes or diversions have not disrupted the enemy and an attack is eminent. A **Defensive Rear Guard** is assigned to hold off this enemy attack, giving time for noncombatants and vital equipment to be evacuated. In some cases, evacuation is not possible and the Team represents a last and final line of defense.

In a Holding Rear Guard Action the Team is assigned to hold a position as long as possible, preventing the enemy from getting past to reinforce another target area. Holding Rear Guard Actions usually defend natural travel ways such as roads, mountain passes, bridges, and river fords.

Disruption

These missions attempt to prevent the enemy from concentrating his forces either by cutting his supply lines or by ambushing troops moving to the concentration point. These missions occur at the perimeter of the enemy's strongpoints. The goal is to weaken the enemy without committing to a major battle and to force him to strengthen his perimeter, leaving him more open to Tactical Assault.

Recon

A Recon mission gathers information on the enemy's strength and position. The degree of aggressiveness the Team uses is up to them. They could simply watch roads from a distance or could try and penetrate enemy screens to obtain first hand information on the enemy's numbers, disposition, and composition. Penetrating an enemy's screens and the information gathered is detailed in the Scouting rules of Section 2.8.

Advisory

Field assignments in which the Team is sent to aid friendly forces or seek out others in need. Advisory Teams consist of teachers, medics, repairmen, and other specialists whose aid is crucial to small groups struggling in the wilderness.

Guerrilla Operations

Clandestine missions of sabotage, assassination, and disruption deep in enemy territory. Unlike Disruption missions meant to keep the enemy from concentrating near friendly bases, Guerrilla Operations take the fight to the enemy. These missions attempt to destroy the enemy's command structure and organization required to keep his forces in the field.

Noncombat

A variety of missions in which the Team is sent into the field, usually to specific target sites, looking for various spare parts or supplies. They are handled by Teams with diverse skills and often contain noncombat personnel.

5.4

RUNNING A MISSION

Section 4.5 defines the method and limitation by which the Team is teleported to and from the mission site. Now it falls upon the Gamemaster to set up the mission scenario. This preparation includes generating terrain, enemy fortifications, and most importantly, the number and type of hostile forces encountered. The terrain type, locale, and type of mission are a factor in choosing the hostile forces encountered. If the Gamemaster wants to leave this choice to fate, he rolls a 000-999 number and finds the enemy encountered from the column labeled "Type" on the **Troops and Enemies Description Table (10). Table 10** is an aid to the Gamemaster and contains a number of forces. It is described in Sections 4.4 and 5.5.

Generally, a mission is preceded by one week of preparation and teleporting time to the mission site. Teleporting back and debriefing following a mission consumes an additional week. Actual mission time varies, but is usually a fourteen day field assignment. In all, each mission consumes a month of the character's time.

Some missions are single actions of attack and defense for which Section 5.5 gives a simple method of generating enemy forces. In general, however, the Team is in the field for fourteen days and must look further than the results of an initial battle. The following guidelines for the action of enemies assists the Gamemaster in extending play to a day-by-day basis. The Team's activities, and the Gamemaster's knowledge of the enemy, dictate the actions which result.

Enemy Actions

When a Team enters enemy territory, the dangers involved depend greatly on the nature of the enemy. If the enemy is composed of a single group, the Gamemaster can easily run this group. If that group loses a fight they can retreat and later counterattack at the Gamemaster's discretion.

When the Team confronts an organized or dispersed enemy, the situation is entirely different. Such an enemy divides his forces into a number of units. These units are positioned so that they support each other, and at the same time defend their remote interests. When a Team attacks one of these units, the enemy will send out a message for help. If this message is sent, there is a 10% chance each hour for the next six hours of enemy reserves arriving. The number and arms of these reserves would be found using the rules of Section 5.5. If these reserves arrive, they will combine with half the remnants of the initial unit and counterattack the Team. If the Team flees, the enemy may Pursue as detailed in Section 2.7.

Six hours after start, unless the Team is still engaged or being pursued, the mission enters a day-by-day scale of play. To run a mission on a day-by-day basis, the Gamemaster rolls for an Encounter each game day. A Team on the move has a five percent chance per day of an Encounter. While stationary the chance falls to one percent per day. If an Encounter is rolled, the Gamemaster uses the **Field Encounter Table (11)** detailed in Section 5.6 to determine what occurs. If no Encounter is rolled, the day passes without event.

The preceding rules provide a general guideline for running a mission. Some missions force additional modifications as described below.

Defensive Rear Guard Action

Each day there is a 10% chance of enemy attack. Because this initial attack is by massed enemy forces, their strength is tripled (3 × the Encounter Odds). In each of the following six days, there is a 10% chance that another reinforcing enemy unit arrives. The Encounter Odds for this reinforcing unit are taken directly from the Encounter Odds Table (Section 5.5).

Holding Rear Guard Actions

There is a 10% chance per hour that the Team no longer has to hold the position and may withdraw, versus a 30% chance each hour of encountering the first enemy unit. After meeting this unit, there is a 5% chance per hour for the next six hours of another enemy unit attempting to pass. Once the position is abandoned, there is a 50% chance the encountered enemy will pursue the retreating Team.

5.5

DETERMINING AN ENEMY FORCE

When a Team faces an enemy, the Gamemaster must determine their numbers and how they are armed. To find this information, enter the **Encounter Odds Table (12C)** cross-indexing the mission's **Risk Level** (Section 5.3) and a 00-99 roll. The first number is the Encounter Odds. The Encounter Odds times the number of initial Team members gives the number of enemy encountered. The second number varies from 1 to 4 and determines how they are armed. Refer to the **Troops and Enemies Description Table (10).** Each enemy type is divided into 4 lines. The second number from the **Encounter Odds Table (12C)** gives the line from which the enemy is chosen.

Example:

A Team initially composed of 5 members encounters an unknown force while on a mission of Risk Level 4. The Gamemaster decides to determine the force encountered randomly on Table 10. A 002 is rolled, yielding an Imperial force. The Gamemaster rolls an 80 and enters the Encounter Odds Table (12C) giving a 2/2. The enemy is composed of 2 × 5 = 10 members and is taken from the 2nd line of Table (10). Here, 10 ex-law enforcement agents armed with LAR7 lase rifles.

The preceding rules generate the number of armed members encountered. If the situation indicates this group is accompanied by dependents, there will be from one to two unarmed people for every armed member. These unarmed members represent family, slaves, or servants depending on the group and situation.

When the Gamemaster wants to generate the number in an entire clan or large group rather than a specific unit, he should assign a Risk Level to the group and use the Encounter Odds of **Table 12C** times 100. About one third of the group will be armed.

5.6

FIELD ENCOUNTER TABLE

The **Field Encounter Table (11)** gives the Gamemaster tremendous flexibility organizing an adventure's day-to-day encounters and occurrences. Each day the Gamemaster makes a 00-99 roll. On a roll of 00-04, a Team on the move has an **Encounter.** On a roll of 00-00, a Team remaining stationary has an Encounter. If an Encounter is rolled, the Gamemaster rolls a six-sided dice. If a six is rolled, it indicates a double sized Encounter (ie. double the number in the opposing group, the material found, or size of facility). A second six-sided dice would then be rolled. If another six is rolled, the Encounter again doubles. This doubling of encounter magnitude can continue until a 1 to 5 number is rolled. This 1 to 5 number is then cross-indexed with a 00-99 roll on the **Field Encounter Table (11)** to find the type of occurrence. These types of occurrences are summarized as follows.

Dominant

The Team comes across a unit from the **Dominant Power** in the area. The Gamemaster should generate this power from the Type column of **Table 10.** The size of the force encountered is determined by the Risk Level given next to the entry using Section 5.5.

There is only one Dominant Power in a given area. When playing on a game map, the Gamemaster should mark the boundaries of various Dominant Powers. The borders between two groups will be areas of contention and more heavily patrolled.

Meeting

The Team runs into a group on the move, either refugees, marauders, or scouts. They either do not have, or are outside their base of operations. The Gamemaster determines this group using the Type column of **Table 10**. Their number is determined from the Risk Level given in the entry using Section 5.5. The Gamemaster can determine their intent and purpose based on the situation.

Facility

The Team has come upon a facility or installation. The Gamemaster generates the facility's state of repair using the **Facility / Warehouse Table (11C)** and a 00-99 roll. The size of the facility depends on how many sixes were rolled for the encounter magnitude and is found on **Table 11B.**

The Gamemaster determines which Dominant Power controls the facility using the Type column of **Table 10.** All useful facilities will be held and guarded.

Warehouse

The Team comes across a store or warehouse. The size of the warehouse is found in the same manner as a Facility, using **Table 11B.** The number of items in stock will vary with size, cost, and use. The Gamemaster determines these stocks using common sense and judgement. Common items will be stocked in quantity, major items in low numbers. A major store will supply 10 to 20 smaller shops; a regional warehouse 100 to 300 small shops. All warehouses will be held by a Dominant Power. The Gamemaster can generate this group using the Type column of **Table 10.**

Equipment Class

An item generated from the Major Equipment category of the **Equipment Table (8)** is found in good state of repair. These items are always in use and guarded. The Gamemaster can generate the group holding the item using the Type column of **Table 10.**

Armory

The Team comes across a Dominant Power in control of an arms stash. Armories are always controlled by a Dominant Power, which should be outfitted accordingly. The Gamemaster should generate 3 to 6 types of weapons using the **Weapon Generation Table (4D)** and Arms Class given next to the entry. There will be 4 to 24 weapons of each type and 1000 rounds of ammunition per weapon. The Gamemaster should roll 1 to 6 times on the **Armor Generation Table (4C)** to determine armor availability. The armory will have 7 to 12 pieces of armor for each type generated.

Item

The Team encounters a group which owns the Item listed. Such items are always in good repair. The group possessing the Item can be found using the Type column of **Table 10.**

Special

A special occurrence of some type, either meeting a special non-player character or piece of equipment. These entries are left for the Gamemaster to use as he sees fit.

Action Entry

The Team comes across a conflict in progress. This entry gives the Gamemaster the opportunity to inject the characters into an ongoing crisis or conflict.

"Sending my encoder home with the wounded. I've got a live beacon here and will stay with the field team."

Justine Matheson
Field Medic

Each team member's Combat Suit has a homing beacon which is activated if he becomes incapacitated. The medic's field kit has a tracking function for monitoring these beacons (see High-Tech Weapon Supplement, Section 2.1).

5.7

THE APOCALYPSE SETTING

The Apocalypse setting begins shortly after the Spectral invasion, just as the Alpha Teams are transported down to meet the Ringers. The Gamemaster should select four to six players to run Ringer characters and generate thirty Alpha Team characters. The Alpha Team members may be assigned to players or serve as a pool from which characters may be drawn. Players are free to run more than one character.

Most of the Alpha Team members had no close ties, the nature of their jobs and long times in stasis making it difficult to maintain close relationships. The ones with close ties will find their loved ones are also present at the beginning of play. These dependents will state that they were arrested by Trident Law Enforcement agents and placed in stasis before the Spectral invasion. The number of dependents is left to the Gamemaster's discretion.

The Group starts play at an abandoned and remote campsite or mining operation. They are transported to the planet's surface near a hidden underground storage facility were they meet the Ringers.

Ringers trained in the use of Power Armor will have a set of Seven Sword Power Armor and a Battlepack of their choice. All Ringers will have an additional 100 pounds of personal equipment and/or munitions. Also present at the site will be:

300 lb	Landcaste weapons and ammunition (Players choice)
1000 lb	Class 1 equipment
900 lb	Class 2 equipment
700 lb	Class 3 equipment
500 lb	Class 4 equipment
100 lb	Class 5 equipment
40	Combat Suits
20	Level 2 Armor Panels
20	Level 3 Armor Panels
32K	Man-day Rations
2	Portable Power Receivers (not licensed yet)
500	Expendable Power Packs

"Negative Lieutenant. You will hold. Rebars in the pipe and you'd better be there when they beam in."

Lieutenant Andy Brennan

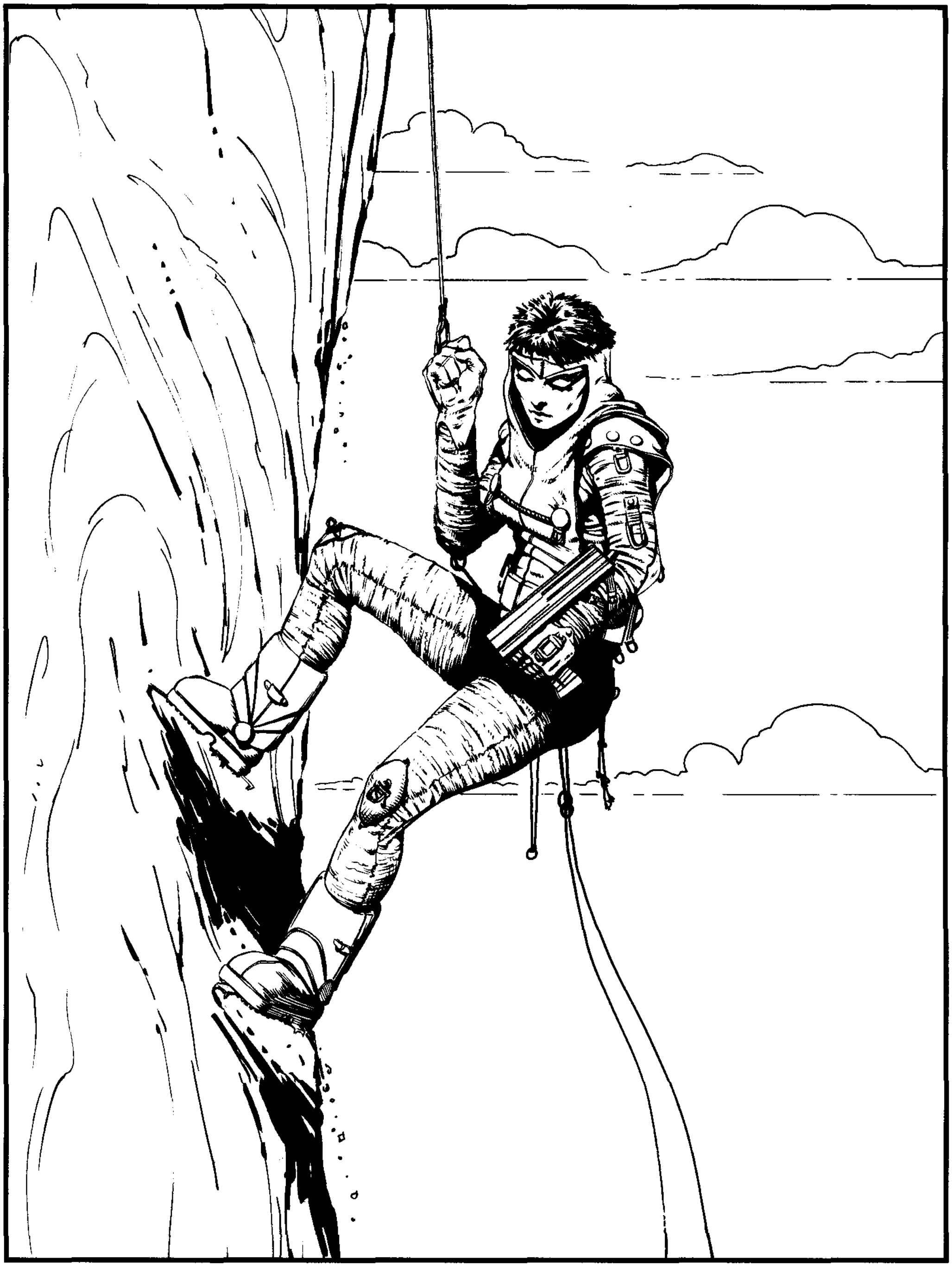
"Rebar" is slang for an assault team. "In the pipe" means the team is already in the ORCA and on its way. They cannot be recalled.

Initially the Ringers will have 14 days to organize the Alpha members before the ORCA comes again into teleporting range. During this time they should try and collect all encoders so that only mission leaders need risk their loss in the field. The Gamemaster should remember that the Alpha Teams are highly trained, seasoned men and women accustomed to crisis and organization. Their training will help them cope with this situation but may not prepare them for the scope of this crisis.

Play starts with the Group in a relatively secure camp. It won't stay that way however, for the entire population is on the move seeking food and shelter. Armed bands roam the countryside, and pockets of civilization like this one are often their prey.

The Gamemaster must think of this game as a campaign. He starts with the Ringers, 30 Alpha Team members, and their dependents. Each 14 days the ORCA will rise and they can go out on Recon and rescue missions. In this way the Group can divide up an look for supplies, power link, medical facilities, friends, or a long term food supply.

In this Setting the Gamemaster has greater responsibility for mission generation. The Group is not free to stay at base and train. This scenario starts long before the Group has that luxury. They must immediately move out to secure power, medical aid, and others in need. Time is critical, and for many of Rhand's survivors this Group represents their only hope. Visser bands and destructive elements roam the countryside. Over half of the population has already perished, and without strong leadership, organization, and a nucleus about which civilization can be protected and rebuilt, the surviving populace will fall into a perpetual state of turmoil and war.



DRGN Combat Suit

"The deployable climbing gear and crampons made the DRGN Combat Suits ideal for fighting the Spectrals in the ice caverns they made their lairs. Almost as if they were designed for that mission."

Niki

The Apocalypse scenario is not pleasant. It is a tough campaign, the challenge being for the Group to survive the first ten months. Groups which make it the first ten months will probably survive. Play then follows the rules of Section 5.3. Things will have settled down. Characters must still go on missions, but there is a secure base to return to. A place to relax, train, and grow. The missions and sacrifices made during the first ten months made this possible and are the heart of **Living Steel**.

Remember, the Apocalypse scenario is not easy. Many Groups will be overrun. They will have to abandon their site and retreat using the ORCA. If this occurs, the Group will be held in stasis for a year. They will then be sent down to join another Alpha Group which made it through the first year and who have a secure base of operations.

If the Team is overrun, the Gamemaster can set back the clock and start the game over with new characters or begin play after the year hiatus using the rules of Section 5.3. Remember, all over Rhand Alpha Groups are struggling. The Phoenix is rising, and those Groups which make it will be joined by those which had to flee. The purpose of these Groups is to find and protect survivors who would otherwise die in this world gone mad. These survivors will be the foundation of the generations to come.

Living Steel is role-playing on a grand scale. The individual is the key and strength of the system, yet it is the Group which is the essence of play. The Group is composed of the dependents and noncombatants which support the Teams in the field, for they are what give this conflict purpose. Without these gentle souls, the characters have nothing but a war without hope or purpose. The player characters struggle and put their lives on the line repeatedly for this Group. Many times they will not come back, but play does not end, for their sacrifice has kept the Group alive and new members will rise to take the place of the fallen.

5.8

COMMUNITIES AND FACILITIES

The next few sections provide guidelines for determining the population and conditions of Rhand's communities, facilities, and industry following the Spectral invasion. Damage from the Spectral bombardment and viral attack are detailed as well as a method for determining the surviving population. These sections are intended as a guide. The Gamemaster should feel free to modify or ignore them as he sees fit.

Rhand's initial communities and facilities are given in **Table 13.** Some communities include "day" and "night" entries, referring to the local time when the Spectrals attacked. Communities in daylight hours when the ORCA was destroyed had their businesses and facilities in full operations. Those at night had many facilities closed, and most workers were already transported to their homes. The values given for each community are described as follows.

Initial Population

Population in the community at the time of the Spectral invasion.

Spectral Bombardment (SB)

Measure of the Spectral bombardment damage sustained. The greater the SB the greater the damage.

Viral Attack

Whether or not the community was hit by the Spectral viral attack.

Industrial Level

Measure of industrial and manufacturing capabilities before the invasion.

Tech Level (TL)

Measure of the community's technology level and standard of living.

Self Sufficiency

Measure of the community's ability to provide itself with the essentials of food and water before the Spectral invasion. This capability has obviously been damaged by the invasion but indicates the level of industrial and manufacturing ability devoted to the basic necessities initially present.

% Armed and Arms Class

Percent of survivors who are armed and the Arms Class of their equipment. The Arms Class may be used in **Table 4C** and **4D** to generate individual weapons and armor.

5.9

SPECTRAL BOMBARDMENT

The following section provides a means by which the level of damage sustained from the Spectral bombardment of Rhand's communities can be accessed. The purpose of this bombardment was to destroy Rhand's high-technology and manufacturing capability. As such, high-tech facilities and key manufacturing facilities were primary targets.

Primary Targets

Table 12D is a list of Rhand's Key Industries and High-Tech Centers destroyed by the Spectral bombardment. To find the level of damage sustained by a particular facility, cross-index the roll of a 0-9 random number and the community's **SB value (Table 13)** on **Table 12F.** This determines the percent of the facility which was not destroyed.

Examples of key industry are heavy machining, metal foundries, refining, electrical parts fabrication plants, and power relay stations within communities. These are the industries which supply the raw materials and parts which make all the other assembly industries possible. Without raw material and electrical parts, equipment cannot be fabricated even if the assembly industries are intact. The Spectrals limited attack was targeted to cripple Rhand's technology and manufacturing base.

In general each community had only one facility of each type. In the Starcaste system each company had a monopoly, there was no competition.

Secondary Targets

Table 12E is a list of some of the secondary targets found within a community. Often these targets were located adjacent to primary targets and were heavily damaged by the bombardment. **Table 12G** determines whether or not a given secondary target within a community was destroyed by the bombardment. Enter **Table 12G** with a 0-9 random roll and cross-index with the community's **Spectral Bombardment (SB)** value from **Table 13.** This gives the chance of a secondary target not being bombed. Now roll a 00-99 number. If less than or equal to this chance is rolled, the target was spared bombardment. If greater than the chance is rolled, the target was bombed. Damage sustained may be found on **Table 12F** as if it were a Primary target.

Examples of Secondary Targets are light machine shops, repair and service centers, warehouses, and assembly lines. As with primary targets, there was only one facility of any given type in the community.

Residential and Commercial Targets

Table 12H gives the percentage of the community's residential and commercial areas which were not destroyed by the bombardment. Retail stores were spread throughout the community providing convenient access. In general each type of commercial outlet was owned by one company serving a number of outlets. The central warehouse of these outlets is considered a secondary target. **Table 12H** is used to determine if a commercial outlet survived the bombardment using rules defined for a secondary target.

"Ignore the sniper, we've got to make the summit before the next pass."

Niki

Leapfrogging ORCA style. Often a scouting team will move out and secure a landing zone ahead of ORCA coverage. The main body is then teleported in. A fast team can cover miles between each ORCA pass.

5.10

POST INVASION POPULATION

This section determines the population two months after the Spectral invasion. Initial population figures are given on **Table 13**.

To determine the remaining population, first determine the percentage that survive the Spectral Bombardment from **Table 12H** by cross-indexing a 0-9 random roll and the community's **Spectral Bombardment (SB)** value given on **Table 13.** Call this percentage B.

If the community was hit by the Spectral viral attack (see Table 13), about 80% of the population was infected. **Table 12H** gives the percentage of the population which survives the subsequent Visser confrontations and chaos by cross-indexing a 0-9 random roll and an SB = 1. Call this percentage V.

The total remaining population is:

$$(\text{Initial Population}) \times B \times V \div 10000.$$

If the community was hit by viral attack, about 70% of the survivors are Vissers.

In general this population will be divided into a number of small enclaves within the community or have fled as refugees. The number remaining in the community depends on the food supply. The remaining population will have stretched the food supply to the limit. As this supply dwindles, more and more groups leave the community and internal disorder among survivors intensifies. Section 5.5 details how to find the total number in these groups. The % Armed and Arms Class entries of **Table 13** give the number of armed members, and the Arms Class of their equipment (Used in **Tables 4C** and **4D**).

5.11

MILITARY FORCES ON RHAND

This section details the Post invasion military forces on Rhand. It is intended to give the Gamemaster a general guide to the locations and size of these groups. Actual placement of military units, refugees, and Visser elements on the Game Map is left to the Gamemaster.

Imperial Forces

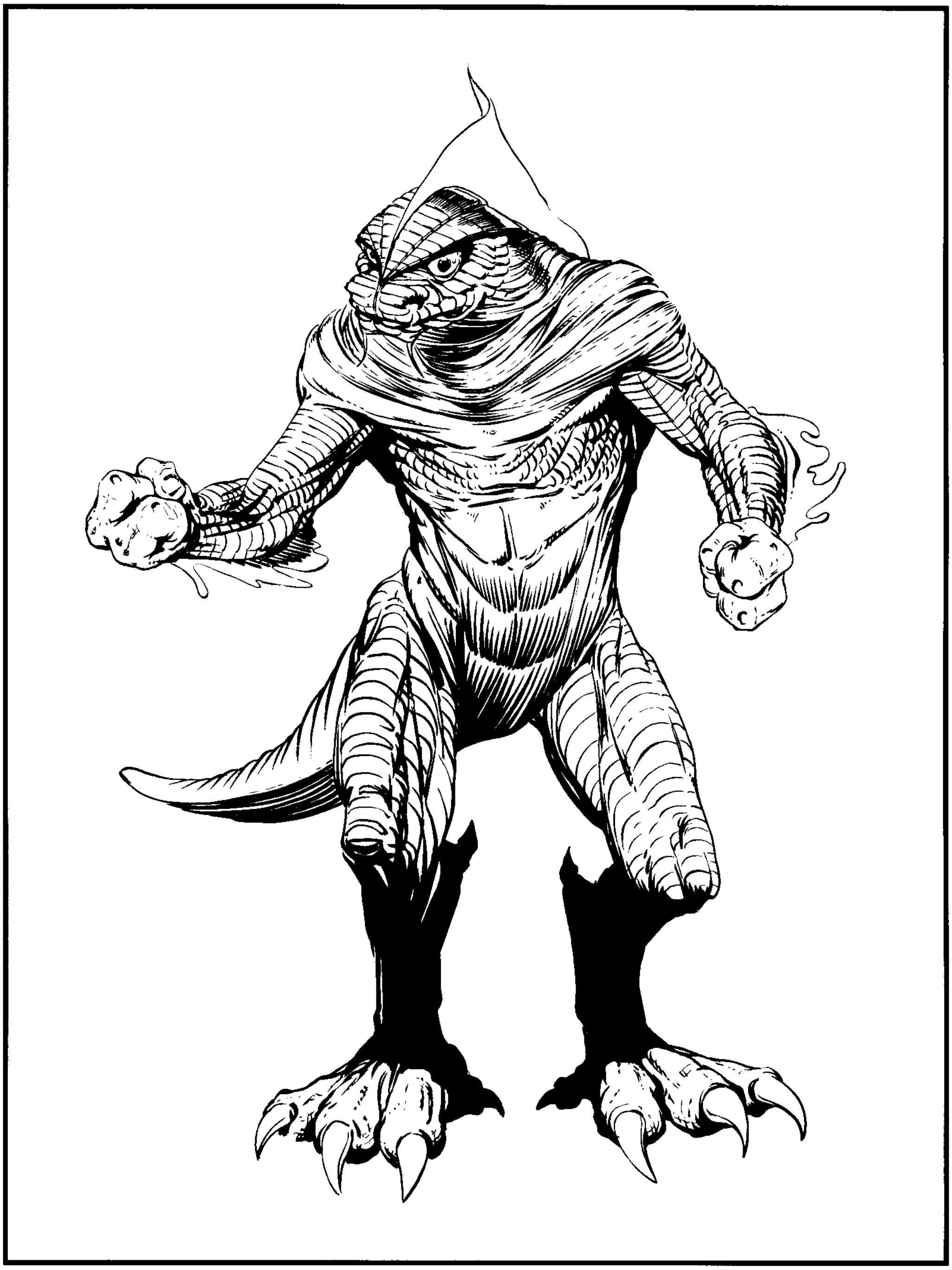
Imperial forces on Rhand were composed of the 27th Starmarine Regiment and the 7th Imperial Guard Strike Battalion. The 27th was stationed at three permanent bases, while the newly arrived 7th Guard were still operating from field facilities.

The 27th was composed of 3 Companies. Each Company composed of 3 Sections, each Section composed of 3 Platoons, each Platoon composed of 3 Squads. During the invasion, the 27th dispersed by Squads to avoid Spectral bombardment. Today these Squads have survived essentially intact and are operating as independent units. The 27th Field Support personnel responsible for maintenance, supply, and service of troops in the field were likewise dispersed during the invasion. These units are operating independently, some having regrouped with combat elements. The size and number of units on Rhand is given below.

Number	Type	Personnel	Vehicles
81	Combat Squad	10 Starmarines 1 SCC Power Armor	1 Grav APC
60	Field Support Squad	36 Personnel	1 Grav Carrier

"The Guard dies, but never surrenders."
Colonel Cambrone
Imperial Guard

The 7th Guard Battalion was entirely Power Armor equipped. Initially it was made up of 3 Sections, each Section composed of 3 Platoons, each Platoon composed of 3 Squads. Each Squad was made up of 6 Power Armor troops and a Grav APC.



Dragoncrest

"Victory is not the goal of battle, rather the spirit released in the course of the struggle."

Dragoncrest 4th Tier

In the second month following the invasion, command elements of the 27th and the entire 7th Guard regrouped to develop plans for establishing Imperial dominance of Rhand. Before these plans were complete, the regrouped Imperial forces were attacked and essentially destroyed by unidentified forces. This attack destroyed most of the Imperial Gunships and heavy support vehicles and left Imperial forces without command or organization. Imperial command down to the Company level has been lost, and Imperial forces have at best regrouped at the Section level. Many Squads have refused to regroup with Sectional Command and for the most part are operating as independent elements.

Trident

Trident forces on Rhand were the 1st and 2nd Starmarine Mechanized Regiment and 9th and 10th Starmarine Regiment. These Regiments were composed of 3 Companies, each Company of 3 Sections, each Section of 3 Platoons, each Platoon of 3 Squads.

During the invasion, the majority of Trident forces were on full alert expecting an Imperial show of force. The 1st and 2nd Mechanized were stationed in the field as well as mechanized elements of the 9th and 10th Regiment. Field Support units for these Squads were also in the field. These units survived the initial invasion but many have subsequently dispersed as their members abandoned their units to try and reunite with family and friends. Today remnants of these units may be found in small groups heading for various Trident communities. The initial strength of these Squads and their Field Support units is given below.

Number	Type	Personnel	Vehicles
108	1st & 2nd Mech Combat Squad	10 Starmarines 1 SCC PA	1 Grav APC
54	9th & 10th Inf Combat Squad (Mechanized)	10 Starmarines 1 SCC PA	1 Grav APC
108	Field Support Squad	36 Personnel	1 Grav Carrier

"I'm coming in with wounded. Can't account for all my thralls . . . . have a security team standing by."

Justine Matheson
Field Medic

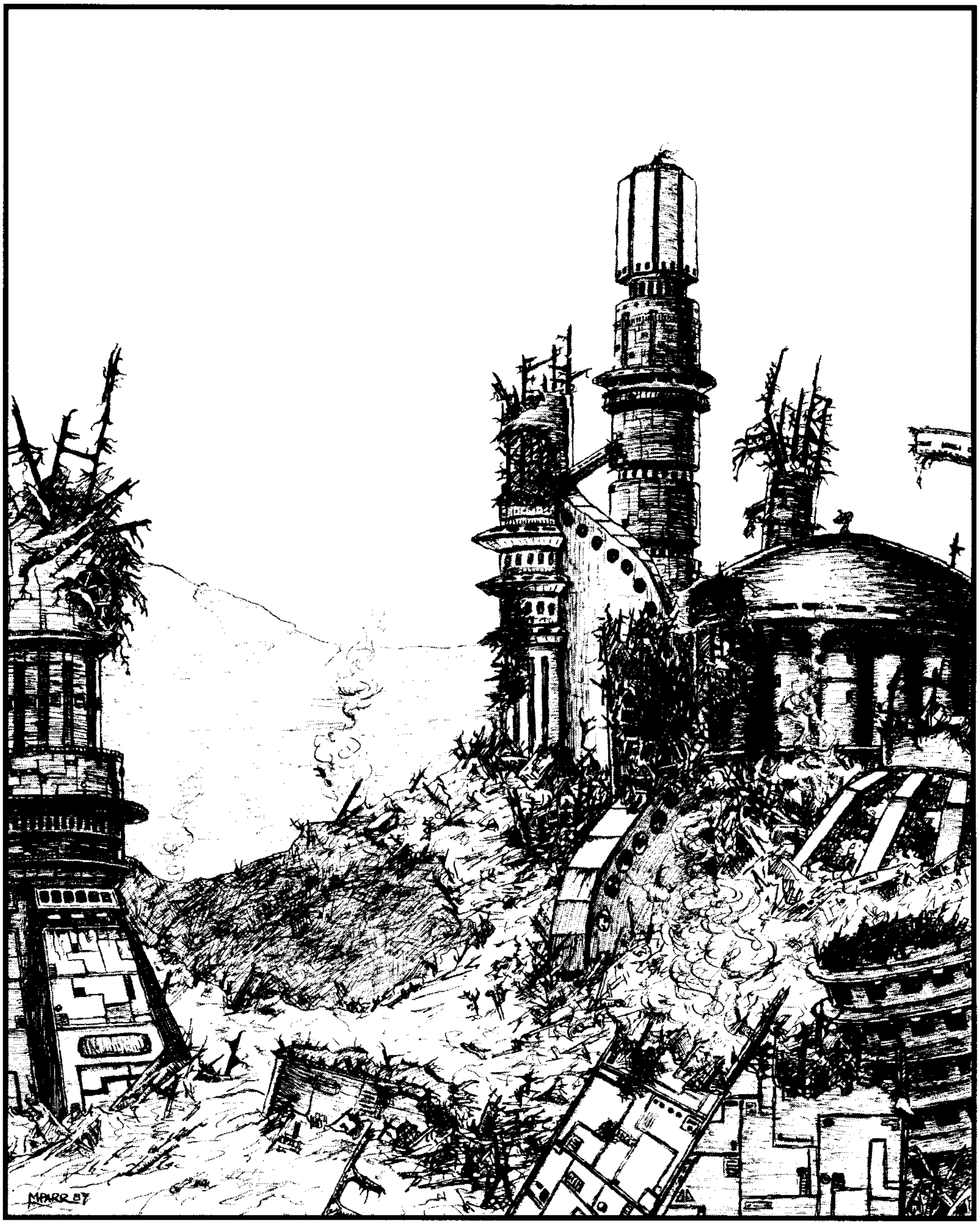
Other than Mission Leaders, only medics carry their own Encoders. Medics have thralls set to their Encoders which they use to return wounded to base on the earliest ORCA pass. An enemy could capture these thralls and attempt to penetrate Base Camp with the medic evac, hence the necessity for a security team.

Infantry elements of the 9th and 10th were stationed in essential Trident communities and facilities. They were caught in the Spectral bombardment and viral attack and have been eliminated as a fighting force; survivors dispersed among refugees and marauders. Initially there were 108 Infantry Squads, each composed of 14 Starmarines and 2 SCC Power Armored troops with a Grav Carrier for transport.

Scan

Scan had one Mechanized Regiment of Starmarines on Rhand. There organization is similar to that of a Trident Mechanized Regiment. One Company was stationed at each of the two Scan communities and the third split between the three Scan Research Labs. The two Companies at the Scan communities have survived the invasion intact and are the strongest military force on Rhand today. The third Company stationed at the Research Labs was caught in the Spectral Bombardment and essentially destroyed. Company strength and equipment is given below.

Number	Type	Personnel	Vehicles
27	Combat Squad	10 Starmarines 1 SCC PA	1 Grav APC
3	Sectional Command Element	8 Command Staff 6 ECM Techs	1 Command Grav APC 1 ECM Grav APC
3	Section Reserves	6 MCPA Pwr Armor	1 Grav APC 3 Lgt Grav Gunship 1 Med Grav Gunship
1	Company Command Element	16 Command Staff 12 ECM Techs	2 Command Grav APC 2 ECM Grav APC
1	Company Reserves	18 HCPA Pwr Armor	3 Grav APC 6 Lgt Grav Gunship 3 Med Grav Gunship 3 Hvy Grav Gunship
1	Company Field & Ground Support	400 Field Support 500 Ground Support	10 Grav Carriers 6 Utility Grav APC



Ruins of a Subcon Community

> **"Even the limited Spectral bombardment left most communities heavily damaged."**
>
> Jason

In addition to these Company forces, Regimental Command is composed of:

24	Commanders and Staff (3 Command Grav APC)
12	Electronic Warfare Specialists (2 ECM Grav APC)
54	HCPA Power Armor Troops (9 Grav APC)
3	Medium Grav Gunships
3	Heavy Grav Gunships
800	Field Support Personnel
1200	Ground Support Personnel
10	Utility Grav APC
20	Grav Carriers

Subcons

Subcon Starforces varied with rank and status of their parent company. Large successful Subcons usually had one Regiment of Starforce Infantry. Smaller Subcons were lucky to field one Company. Subcon Starforces were not mainline military forces. They had few grav vehicles and were intended for defensive engagements within populated areas and cities. Subcon military organization follows the standard used by Trident and other Starguild forces. One Regiment is made up of 3 Companies, made up of 3 Sections, each of 3 Platoons.

"Lieutenant, hold reinforcements. We've lost it down here. Will salvage what we can and catch you on the rebound."

Trent

The Lieutenant is an Operations Officer. The mission commander feels he can't hold even with reinforcements. He is going to evacuate on the next ORCA pass and call in reinforcements from another position.

Subcon military forces were not on alert nor had they warning of the Spectral attack. They were caught in their communities and suffered heavy losses. Very few Subcon military units have survived the invasion. Surviving military personnel have joined the ranks of refugees and marauders. Essentially all Subcon Grav vehicles were lost during the initial stages of the invasion.

Subcon military organization and composition prior to the invasion was similar to a Surrogate's forces described in the next sub-section. In general, Subcon military personnel encountered today will be remnants of Starmarine platoons or Field Support units. They will have no military command structure and have broken up into small survival groups.

Surrogates

Most Surrogate communities were spared Spectral bombardment and viral attack. As a result their military forces are essentially intact. The size of these forces varies, but for the most part are Company size. Surrogates preferred to operate at Company level and unlike Starforce units, these Companies were self sufficient containing all the Field Support personnel required for extended operations.

The following gives Company composition of a typical Surrogate force. Surrogate forces varied significantly with wealth and rank. The more powerful units had greater numbers of Grav vehicles, Grav Gunships, and relied heavily on Power Armor.

"Good morning Lieutenant. Come on down, the weather's fine."

Trent

Number	Type	Personnel	Vehicles
9	Platoons	32 Starmarines 2 SCC Pwr Armor	1 Grav Carrier
3	Section Command Elements	20 Command Staff & ECM Techs	3 Command Grav APC
1	Company Command Element and Reserves	32 Command Staff & ECM Techs 18 Power Armor 500 Field Support	4 Command Grav APC 3 Lgt Grav Gunship 3 Grav APC 15 Grav Carrier

Landcaste

There were four Regiments of Landcaste troops on Rhand. These regiments are structured in the same manner as Trident Starforces. As a result there were 12 Companies. Each Company was stationed at one of the 12 Landcaste communities.

Landcaste Companies were larger than Starforce counterparts in terms of personnel. They did not have Grav vehicles and relied upon Ground Transport, the ORCA, or Trident Starforce for mobility.

During the invasion Landcaste forces were widely scattered in squads and platoons monitoring Bondsmen communities and keeping up a high military presence. Landcaste ground patrols were common along Rhand's remote dirt roads connecting Power Relay Stations and near large tourist resorts. They were responsible for monitoring the Bondsmen communities and garrisoned remote sites of interest. These squads were the remote eyes and ears of the Trident Starforce. In the event of trouble, a Starforce unit would respond as needed transporting Landcaste reinforcements or providing air support.

Brandy Charlaton: Station Manager KVSR Radio

> **"I turned and froze, held by the sight of this Visser beauty. We stared for a moment, but were shocked back to reality by the chaos surrounding us. I never saw her again."**
>
> Jason

These field assignments left Landcaste forces largely intact following the invasion. Landcaste communities were not bombarded and suffered only viral attack. The viral attack took its toll in breaking up Company command, but for the most part Landcaste personnel have survived. They are no longer organized in units any larger than a Section, but are armed and organized. A Squad consists of 18 men under the command of one officer and two NCOs. A Platoon was made up of 3 Squads and usually supported by 4 SCC Power Armored Troops. A Section was madeup of 3 Platoons.

5.12

MISSION SUGGESTIONS

The world of **Living Steel** is one of action and adventure with dozens of vital missions to challenge the characters. The following are a sample of some the numerous adventures and goals which may be pursued.

Power

Power is vital to the player characters. Opening and maintaining their power link all the way up the chain to the parent power generator is vital. In many cases, the current owners of the Power Relay Stations (PRS) will be well organized and open to negotiations. In most cases the characters will not want to risk confrontation fearing damage and loss of the PRS. A group holding a PRS who understand its criticality and irreplaceability will usually be easy to negotiate with. A group holding a PRS who are not open to negotiation is equally likely to destroy the facility rather than lose it.

The characters must think of themselves as managing a large chain of independent warlords. Handling feuds between rival groups, threats from outside destructive elements, and service and repair of the PRS require some overall mobile force. The characters can provide this force and overall management. At the same time they will have to learn to handle the PRS owners with respect and understanding. The Ringers know what it is like to have an outside power impose its will on them. They should not be eager to use their power to dominate others. **Living Steel** should not be a game of military conquest, but one of diplomacy, mutual alliance, and promotion of the hope and goal to rebuild a better life.

Medical Aid

Medical Aid is of vital concern to the characters and survivors of this apocalypse. Currently the only organized medical services are Scan Technologies. Scan has its own organized and powerful Starforce. They developed a vaccine against the Spectral viral attack and were able to protect most of their holdings. Today, they are probably the most powerful group on Rhand.

There are a number of Scan facilities on Rhand. These currently sell medical services, but more importantly manufacture and sell medical supplies. Lesser Landcaste and Bondsmen facilities scattered about Rhand may or may not be operational. The characters first goal might be to try and save one of these lesser facilities. Their ability to travel and disperse medical aid, combined with trained paramedics will make them an efficient medical force. With an operational Landcaste or Bondsmen medical facility they can manufacture medical supplies and help thousands by sending aid teams into the field.

"Kill a Scan in anger and a hundred lives are lost."
Jason

Scan is currently going to all Landcaste and Bondsmen facilities collecting all useful equipment. They are destroying anything they cannot take with them. As they do not have access to the ORCA they are traveling by ground vehicles and have not reached all the facilities.

If they learn of an operational facility, they will see it as a threat to their monopoly. They may move out to destroy or conquer this threat.

The characters would then find themselves in a delicate situation. They really cannot afford to confront a well equipped Starforce. And even if they do, they really don't want to cripple Scan forces. Scan, for better or worse, is still providing the vast majority of medical supplies on Rhand. Destroying this, either by overt action or by crippling Scan's ability to defend themselves, will help no one.

Scan is composed entirely of Starcaste. Their social structure is intact and they intend to come out on top, with all the status they had before the invasion. Conquering a Scan facility will not be a solution. The people will be rebellious, hard to manage, and soon supported by other Scan units. Again negotiation and tact will be better than open confrontation.

Trade

Food, spare parts, and skilled labor are all critical commodities. Currently these commodities are in the hands of various groups scattered around Rhand but there is no way for one group to trade with another. One area may have surplus food and no spare parts, while another, a warehouse of parts but no food. Many areas are no longer serviced by Power Relay Stations. In these regions ground cars must rely on chemical fuel. This fuel was made by a number of Subcon companies before the invasion, but those plants are likely abandoned. Even if the fuel were being produced, there is no way of transporting it to those who need it. Rhand relied almost totally on the ORCA for transporting people and materials.

The characters are in a perfect position to fill the role of traveling mechanics and spare part dealers. They can serve a vital and important function trading parts, food, and services.

Opening such a market will be quite dangerous. They will be targets of any enterprising group with goals of gaining ORCA capability. This will mean the characters must come up with a system to preserve their ORCA capability and not allow it to fall into the wrong hands. Defending trade, recovering lost encoders, and reinforcing Teams who come under attack can be a job for a special unit within the character's ranks and the heart of many scenarios.

5.13

NOTES TO THE GAMEMASTER

This section presents a number of suggestions and reminders for the Gamemaster. It is intended to clear up vague areas in the rules and provide indication of how the designers felt the game might be played.

Technology

Rhand was a remote recreational planet. Except for a few isolated Starcaste facilities it had little high technology manufacturing capability. What high technology existed were the targets of Spectral bombardment and combat teams. This leaves Rhand virtually incapable of manufacturing or repairing many of its high-tech devices. Even if a few repair facilities survive, the necessary support industries and supplies required for manufacturing were never established.

Rhand's high technology is thus irreplaceable. The Power Relay Stations, caseless munitions, Starforce weapons, encoders, and even many of the Landcaste weapons cannot be repaired let alone produced. Rhand did not have a strong technology foundation. Essentially all its high-tech needs were imported.

For this reason characters should try and save their advanced technology. This includes the Ringers. They are irreplaceable and represent an awesome combat team. They should not be wasted on trivial events. Ringers are held as a reserve. They defend essential facilities and are often used as a last stand against an enemy the Alpha Teams have no way of countering.

The burden of the game is on the Alpha Teams and survivors of this Apocalypse. The Ringers provide a support staff and military might to survive the first desperate months.

Power Armor

Power Armor was designed for use with Grav vehicle support craft. These craft transported the troops, provided power recharge, ground support, and service. It was not designed for unsupported operation in the field. Its power requirements restrict its use on extended missions without convenient access to power. Since few Grav vehicles have survived the invasion and power is unavailable on many missions, the use of Power Armor in the field is severely restricted.

Power Armor is not generally sent into the field on extended missions, but used to defend vital installations and top priority attacks under ORCA coverage. Personnel trained in the use of Power Armor are likewise not sent into the field in non-powered armor. They are highly trained, irreplaceable warriors far to valuable to risk on missions which could be handled by Alpha Team members.

This somewhat limits the playability of Ringer characters and is why we suggest each player run one Ringer as well as one or more Alpha Team members.

"You might have saved the day today. But who's holding the bag tomorrow?"

Niki

Power armor's limited power duration limits its use in the field. Ideal for point defense and attack under ORCA coverage, it cannot be supported in the field. Power Armor leads the charge, but holding the field falls to the non-powered infantry.

Ammunition

The weapon data supplement contains data for three types of ammunition. They are listed in order of availability (top to bottom). Armor Piercing ammunition is the most expensive and the least likely to be encountered. Troops were issued AP only when the enemy had Power Armor in the vicinity. As there were few Power Armored forces, Rhand did not have a large stock of this ammunition. Since the end of the Dragoncrest wars, there has been no enemy with significant Power Armored forces. Stocks of AP have been depleted throughout the Starguild and there has been no need for replenishment.

The ORCA

The ORCA teleporting system was designed for personal transportation. It has a capability to transport items eight foot in size. Larger items require a special **Mass Transport Facility.** These Mass Transport Facilities were destroyed during the Spectral attack.

The ORCA system was accessed through an Encoder, a device worn on the wrist. To use this device the user input the coordinates of his destination and once verified, hit the transport button. As soon as the next ORCA satellite came into range, he would be transported to his destination.

Standard civilian Encoders could only take the user to certain listed locations. These listings included all the tourist resorts, facilities, shops, and attractions. Their Encoders would not let them inadvertently transport themselves into the wilderness or a restricted area. A listing of transport locations and coordinates may be found at thousands of locations in convenient **Encoder Information Booths.** Note that the destination must be input prior to transmission. This means the user must know his destination coordinates.

"I'd love to stay, but power's low and I'm late for a hot shower."

Lance

The Alpha Team Encoders were **Clear Access Encoders.** They could transport to any location on the planet. To transport to any location, the coordinates of the destination must be known. There existed Navigation units with maps and coordinates of Rhand. These **Navigation units** were carried by Search and Rescue Teams and other Alpha Teams which might have to operate in the wilderness. The coordinates called out on these mapping units is accurate to only 100 hexes. This means the Team can only teleport to a location not on the standard Information Booths to an accuracy of 100 hexes. For more accurate transport, a scout must be sent to the location with a Navigation Unit and take a coordinate reading. He can either store this reading in his Encoder, or radio the reading back to base. The next Team can then use this reading and arrive with almost perfect accuracy.

Military and secured areas had **Transport Shields,** electronic units designed to stop uncleared ORCA transport into their area. Man-portable Transport Shields had a range of one mile, while larger devices built into facilities could stop transport at ranges of several miles. Any unauthorized attempted entry into a Transport Shield resulted in the user(s) being transported to a preset security detention area. There the facility's security teams could handle the intrusion. The Transport Shield warns the security team of incoming transport and gives them five minutes to prepare before the intruders are transmitted.

All Encoders had an emergency channel. On this channel the user could call for help. His plea would be transmitted to the nearest ORCA facility where an operator could dispatch an Alpha Team. Alpha Teams were held in stasis within the orbiting satellite's memory banks. Their Clear Access Encoders could be set for this purpose (Special Access Setting). Their work involved a fourteen day tour of duty (in stasis) followed by a fourteen day furlough.

Ground Transportation

Rhand's tourist and upper classes relied almost exclusively on the ORCA for mobility. The military also used the ORCA but had a significant Grav vehicle fleet to backup this capability.

The Bondsmen did not have access to the ORCA except for transport to and from work. Transport to work was in large groups escorted by Landcaste managers who controlled the Encoder. This limited there mobility and freedom. Bondsmen rarely left their places of employ or home communities. They didn't have a way of leaving. Most Bondsmen would grow up and live their lives never moving further than 300 miles from their homes. The 300 miles was the range of a ground car from their home Power Relay Station. Successful Bondsmen might own or have access to a ground car. These cars were used for transport within Bondsmen communities. Many of these communities were fairly large (up to 300 thousand) and small practical cars and scooters were available. These ground vehicles were powered by mobile power receivers and drew power from the communities Power Relay Station.

Within communities there were roads and service paths for ground vehicles. Outside communities there wasn't much of a road system. At best communities were interconnected by dirt roads and off road recreational tracks. There simply was no reason for a well developed road network.

"What do you mean our VP might be a little dead."

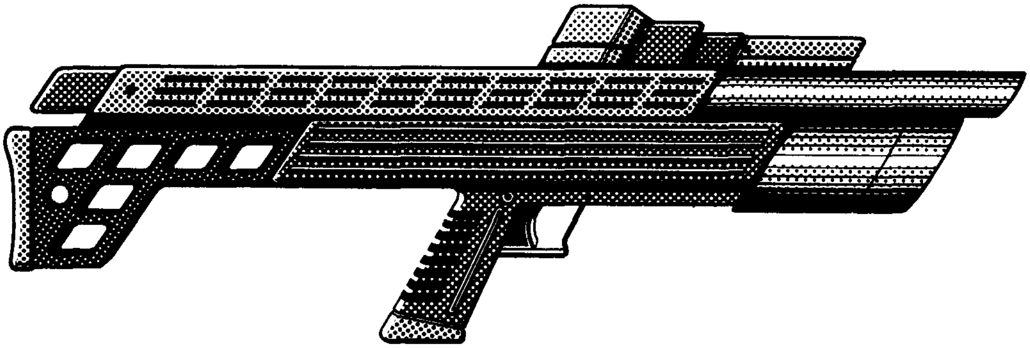
Axly Suregrip
Captain for a Day

VP or Vital Personnel include Repairmen, Surgeons, and Doctors. VP were assigned Security Teams when in the field.

The Wilderness

The vast majority of Rhand's land mass was undisturbed wilderness. Much of the wild life and vegetation was brought by the Starguild and there existed few dangerous lifeforms. What dangerous lifeforms existed were pushed back into the deep wilderness by sonic barriers set up around all tourist parks and recreational areas. In this way, tourists could enjoy the wilderness without worry of dangerous wildlife.

Today, many of these sonic barriers are no longer powered, and Rhand's lifeforms are free to move about as they please. The former park areas teemed with life, there being few large predators. Now these large predators are moving into these happy hunting grounds. These predators include bear, cougar, dionical, and other earth and alien forms. These forms were brought to Rhand to regulate the growth of the other species. Rhand had a large and sophisticated Ecology and Resources Agency, and this fertile planet was being used as a model of bioplanning and development.



LARGL8: Lase Assault Rifle with Grenade Launcher

6

BACKGROUND INFORMATION

This chapter provides additional information on the Starcaste System, the World of Rhand, the Spectral Invasion, and history of the Seven Worlds. Combined with the material from the front of the book, and information in Chapters 4 and 5, the player will develop a feel for the world of Rhand. He will gain insight into the conditions surrounding his characters, and come to know their lives preceding the Spectral invasion.

6.1

THE STARCASTE SYSTEM AND IMPERIUM

The Starcaste system was established centuries ago after the first interstellar colonial wars. This war took place shortly after the discovery of faster than light drive. Stardrive opened the stars to exploration, and their followed a period of rapid expansion. Major corporations backing this exploration rapidly established colonies as a profitable and necessary commodity. Earth was starving for the raw materials the colonies provided. Yet the colonies gave rise to their own companies and independent people. People who did not consider themselves part of the old world. The parent corporations soon found themselves in competition with these upstarts. Competition which became more and more costly.

In the end this led to war. There simply was no way for the parent corporations to regulate the expansion of the new worlds. The new worlds gave rise to independent companies and peoples who soon struck out on their own. When it finally came to war, Earth found itself hardpressed against the colonial forces. Only after a long battle of attrition did Earth triumph. The colonies were put down, and the status qou maintained.

But the corporations learned a vital lesson. They needed constant expansion and colonization to grow, yet could not lose control of the outer colonies. Their power must be centralized, it could not be open to competition. This led to the formation of the Starguild. A federation of major companies and corporations banned together for mutual protection and guarantee of power. Together they controlled all advanced technology. Only members of the Starguild had access to this technology, and their small, elite populace was guaranteed prosperity for generations to come. To enforce this treaty, and ensure the mandates of the Starguild were met, they created the Imperial forces.

Initially each Starguild member contributed to this Imperial force. It was an Interstellar regulating force whose job was the domination of the new colonies and worlds.

To control the masses, the Starcaste system was imposed. This caste system separates men into Starcaste, Landcaste, and Bondsmen. The Starcaste maintain complete control of advanced technology. This monopoly ensures their military superiority and guarantees their position. The Landcaste are a caste of people who lack stardrive but control the military, economic, and political offices of planetary governments. The Starcaste are concerned only with their own small populace. They leave the running of a planet to the Landcaste. The Landcaste have a style of life reminiscent of the monarchs of pre-Napoleonic Europe. They are backed by their own militaries, composed entirely of Landcaste, and have enough power to dominate the Bondsmen, but no Stardrive with which to threaten the Starcaste. The Bondsmen are simple workers. They cannot be anything more.

This system would have worked well had the Starguild been able to cooperate with one another. But while it worked to dominate the affairs of Landcaste and Bondsmen, it did little to prevent intercompany feuds between guild members. With each new atrocity, Imperial power grew. With each colonial uprising, Imperial power expanded. In the end the Imperium was no longer a force composed of guild members, it was a separate and powerful entity. An entity hungry for power and in a position to seize it.

6.2

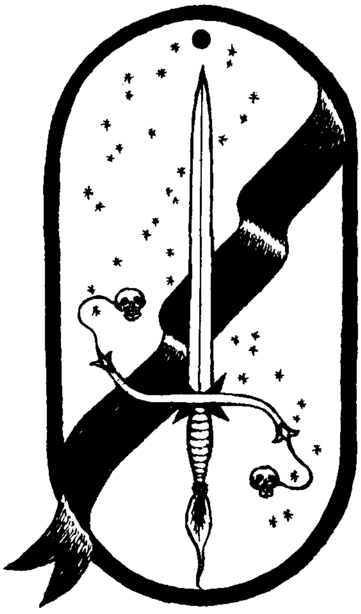
THE WORLD OF RHAND

Two months ago Rhand was an almost ideal world, a recreational planet where the rich and influential traveled to get away from it all; a land of open spaces, warm waters, and mild climate; a world dedicated to leisure. The crowded cities, prisons, reeducation centers, and military presence prominent on other Starguild worlds was strangely absent. The tension between Starcaste and Bondsmen seemed out of place on Rhand, for this was a planet of plenty, with growth and hope for all. Free enterprise, small business, and civil liberties were on the rise, and the people of this bountiful world were reaching the critical stage of national identity.

This realization lay dormant, hidden and distanced by the vast open areas which isolated the people of Rhand, for Rhand was the home of Trident, a company with vast interests and sole owner of teleporter technology. Trident was a senior member of the Starguild, and Rhand benefitting from this, had one of the most advanced teleportation systems in known space. Via four orbital satellites, the Orbital Remote Commuter Access system made any locale on the planet only a moment away. Freed from the burden of time and distance, Rhand was transformed into a resort and haven for the rich and powerful.

Initially uninhabited, this planet was colonized by a carefully chosen group of Bondsmen. Bondsmen talented enough to turn this fertile paradise into a rich resort, yet meek enough to be unpretentious. Rhand's resident population existed to serve the tourist trade and guests of the Starguild. It was the only planet on which such influentials could walk without fear of the people they ruled. On Rhand there were no starving masses. No degraded working class who struggled without hope or rest. The sparse population spread over the face of Rhand promoted their isolation and dependence on their hereditary masters. They had the life any Bondsmen in the galaxy would envy. They were a people with few complaints, thankful for the good life they led.

Rhand was not a planet without strife, however. There existed a great deal of tension between Imperial and Trident forces, for Trident was using this planet for more than a tourist resort. The Imperium was never able to disclose Trident's real goals on Rhand, but both Imperium and Trident had built up large and sophisticated military and espionage forces. The showdown was inevitable and postponed only by the unexpected Spectral invasion.



"Blade of Peace"

Imperial Logo

Trident was the owner and director of Rhand. The Imperium was there to regulate and ensure that mandates of the Starcaste were upheld. To thwart Imperial efforts to disclose Trident's secret dealings, Trident established a large and efficient Law Enforcement Agency. This Agency served as planetary police and monitors. On the surface Rhand was a peaceful, ideal resort. Behind the scenes Trident, Imperial, and other Starguild forces fought a clandestine war of espionage. The exact nature of Trident's efforts were never disclosed, and the devastation of the invasion left few records. Evidence indicates Trident's efforts dealt in weapon technology, artificial intelligence, and genetic engineering. Weapon systems were clearly outside the bounds of Trident's commercial license, while artificial intelligence and genetic engineering banned by all convention of the Starguild.

This all changed when the Spectrals came. Mankinds newest and most dread enemy. The destroyers of the Dragoncrest™ empire had reached human space.

Mankind had fought long exhaustive wars with his neighbor the Dragoncrests. Wars he could never break nor win. Yet after decades of conflict, the Dragoncrest empire collapsed almost overnight. All resistance to human expansion evaporated, leaving their holdings open for subjugation. It was a golden age for company profit, imperial expansion, and alien subjugation. All too soon the reason for the collapse was discovered. The Dragoncrests had been fighting the Spectrals on the far side of their empire for years. Fighting and losing. Now these conquerors were racing over the fallen empire and were at the doors of human space. Against mankinds greatest threat stood a loose federation of selfish companies and associates. One by one they fled to their strongholds. One by one they fell before the Spectral onslaught.

6.3

THE SPECTRAL INVASION

The Spectral Invasion plan is long term. Unlike man, the Spectrals are not concerned with monetary or material wealth. Their plans need not follow any set schedule or deadline. Their plans are indirect, yet self-fulfilling, they do not require outside contact nor coordination from a central command.

The Spectrals are not organized like man. There is no central government or body. They have a hive mentality and exist as one entity. Each Spectral goes about its duties for the benefit of the whole, but the life or death of any one is of no consequence. This dispassionate, remote, and alien society invaded Rhand in a single large spacecraft. This craft did its damage, deposited its seed, and was destroyed. No further contact with the outside is required. Now over the decades, the Spectrals will wait, grow, and build. Slowly conquering Rhand, destroying every living thing on the planet.

The Spectrals invaded Rhand in one large cargo carrier. This carrier was armed, and through surprise quickly destroyed the small Starfleet stationed there. The Spectrals then released a virus which permanently alters a person's mind. This virus affected over 80% of the population. It was short lived, anyone not exposed in the first month being safe, but its effects were anything but short term. The virus permanently altered the DNA of its victims creating mind altering chemicals which short circuit the natural inhibitions against murder and violence. The effect is permanent and hereditary. It does not make the host stupid, but leads to a violent, brutal society incapable of higher technology or cooperation.

While the infected millions rampaged, the Spectrals landed breeding tubes and pathfinders in Rhand's remote regions. These elements will wait, slowly breeding as civilization falls to barbarism. The Spectrals will then slowly take over. They will be the only group with a common goal and purpose. Man will be viscous small tribes too busy killing each other to recognize the threat and incapable of cooperating to destroy them.

To assist in Rhand's destruction, the Spectrals brought a subject race, the Slozek. The Slozek are superb warriors and were used as light infantry. They are incapable of industry, management, or even agriculture. They require slave races to produce food and tools. They are a destructive race which can be let loose and not threaten the eventual Spectral takeover. Mankind affected by the virus, is likewise no threat.

So the Spectrals will lurk in the shadows, and as the years pass, build their numbers. When the time comes they will emerge and again subjugate the Slozek.

The Spectral Pathfinders' goal is to make Rhand ready for its new guests. To do this, all life on the planet must eventually die, but not just be killed, it must be "eaten". Its life force must be consumed and absorbed. The Spectrals do not merely want to kill life, they want to feed off its life force in a very face-to-face way.

Spectral Pathfinders

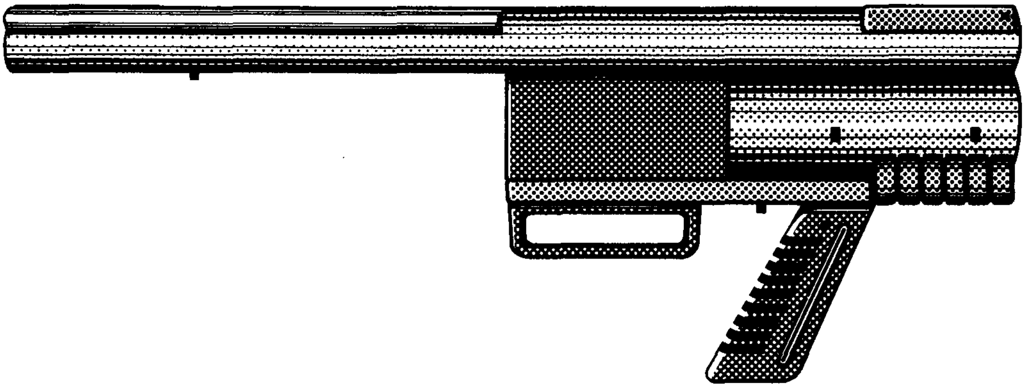
As far as anyone is concerned, there are no Spectrals on the planet. They were destroyed along with their spacecraft before they landed. Nobody suspects that the Spectrals actually destroyed their craft to cover their landing. The Spectrals want it to stay this way.

The Spectrals will use others to meet their ends. Spectral Pathfinders have great telepathic capability. They can contact certain people thousands of miles away. These people tend to be those seeking power to the exclusion of anything else. People whose lives are lost in the pursuit of destructive dreams. Many are now Vissers, but the viral attack did more than destroy their ability for higher social interactions, it actually amplified their psyhic ability. Not to the extent that they can use it, but enough for the Spectral Pathfinders to contact and influence them. The Spectrals offer them encouragement, information, and support. While the characters work to encourage cooperation among peoples, the Spectrals work to promote the forces of hate and suspicion.

The Spectral Pathfinders contact their destructive elements, arm them from Spectral arms stashes, and provide them with superior reconnaissance. Spectrals have the ability to sense life force. This sense operates over great distances, and any group operating near a Spectral base is easily picked up much as a person can see a light in a dark field. Their sense is not attenuated by inanimate objects and limited only by intervening lifeforms and distance. All Spectrals, even the Minor Workers, have this sense. The Workers and Warriors sense is not as powerful as that of the Pathfinder, but it is adequate for even one Minor Warrior to recon an area of 100 mile radius. This Warrior can hide near the Spectral pawn and keep him informed as to groups moving within his area. Likewise, this Warrior can filter life force thoughts and pick up any threats or intents to harm his ward within a 15 mile radius. This early warning and recon system makes a Spectral backed Visser a powerful enemy. To add to this power, the Pathfinder boost the Vissers natural leadership and command ability. Not in a way any sane man would respect, but in a way particularly appealing to Vissers. While normal Visser bands are never large, Spectral backed Vissers can command large forces. These forces are organized, destructive, and by normal standards crazed.

TRIDENT INDUSTRIES

Trident Corporate Logo



7SLG8: Seven Sword Lase/Grenade Launcher Battlepack

6.4

HISTORICAL TIMELINE

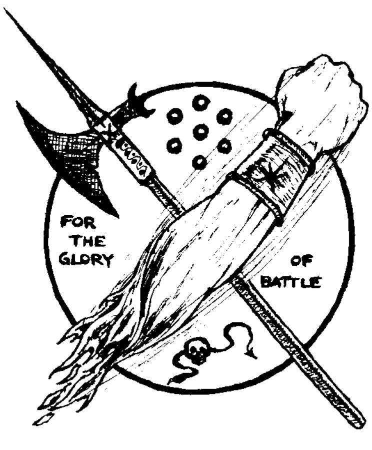
The following are brief highlights of key events in history starting shortly before the Starguild discovery of the Seven Worlds. This history focuses on the Seven Worlds, as that system was the stage for man's greatest struggles.

Prior to Starguild discovery, the only planets on the Seven Worlds that were highly developed were Alpha and Hryken. The other five worlds Vallone, Dietz, Marcel, Triton, and Abon-Kar were sparsely populated and contained little industry. All seven of these planets were habitable and rich in raw materials. This made the Seven Worlds the most valuable system in known space and the object of decades of conflict.

Decades before the Starguild discovered the Seven Worlds it was found and populated by Starguild rebels. By the time the Starguild found its way there, the Seven Worlds had its own Starforce. The battle between Starguild and Seven Worlds dominated the affairs of man for two centuries.

Rhand's Ringers were drawn from the time period 2140 to 2194.

2115	Starguild reports of rebel forces operating within the Velt sector confirmed.
2116-2139	Starguild espionage and deep recon efforts into the Velt sector intensify. Rebel starforces based in the Velt sector attack Starguild holdings and deep recon vessels. All efforts to gain location of these rebel forces fail.
2140-2165	**Seven Worlds—Starguild Border Wars** Starguild homing in on rebel system. Its location isolated to a dozen possible systems. Major commitment of starfleet to protect deep recon efforts into this region.
2166	Location of the Seven Worlds found. Starguild assembles a fleet to conquer the system.
2167	Starguild expeditionary fleet into the Seven Worlds destroyed.
2168-2170	Starguild rallies to defeat rebel forces on the Seven Worlds but is worried about alien contact along its borders. Beginning of the Dragoncrest Border Wars.
2171-2178	**Dragoncrest—Starguild Border Wars** Dragoncrest Border War period punctuated by Seven World—Starguild skirmishes. The Starguild builds up a large force but is indecisive as to which is the greater threat, Dragoncrest or Seven Worlds.
2179	**First Seven World—Starguild War** Starguild invades the Seven Worlds. First Seven World—Starguild War begins.
2180	Starguild ground forces on Getra, a colony along the Guild—Dragoncrest border, is attacked by Dragoncrest ground forces. The Imperial Guard based on Getra are considered the best in known space. They are overrun. Last transmission from Getra, "Send help . . . Send help we're being overrun . . . We're being hit by living steel".
2180-2182	Starguild continues to attack the Seven Worlds but holds its major forces fearing Dragoncrest attacks along the border. Starguild renegades and rebels throughout known space begin to rally at the Seven Worlds. Desertion among Starguild and Landcaste forces common.
2183	Dragoncrests invade the Seven Worlds.



"Sword's Path Glory"

Red Targas, Seven Sword Legion

2185 Starguild attacks on the Seven Worlds prove too costly against both Dragoncrest and rebel forces. Starguild pulls out after bombarding the planet of Alpha.

2186 **First Seven World—Dragoncrest War**
The First Seven World—Dragoncrest War begins.

2187 Dragoncrest secure Starfleet superiority in the Seven Worlds.

2188 **Operation Lance**
Dragoncrest ground forces land on Alpha. Seven World forces from Hryken counterattack and establish a landing zone on Alpha.

2188-2192 **Alpha Campaign**
Seven World—Dragoncrest ground engagements on Alpha.

2193 Dragoncrests abandon Alpha and retire from the Seven Worlds. End of the First Seven Worlds—Dragoncrest War.

2194 **Alpha Rear Guard—Fall of Hryken**
Massive attack on the Seven Worlds by Starguild forces. Seven World forces destroyed and the planet of Hryken reduced to rubble.

2195-2198 Starguild partitions the Seven Worlds among Guild members. Recolonization of the Seven Worlds begins. Seven World survivors isolated on the penal worlds of Alpha and Hryken. Alpha and Hryken have been so devastated by the wars that no attempt to rebuild them will be made until after the other five worlds are established.

2199-2219 Five of the seven worlds colonized by the Starguild. Bondsmen and Landcaste imported. Alpha still a penal world essentially undeveloped and used as a training zone for Imperial troops. Hryken rebuilt by Seven World survivors. Starguild unable to monitor and control Hryken's development. The populace is rebellious, armed, and Imperial troops fear to walk the planet.

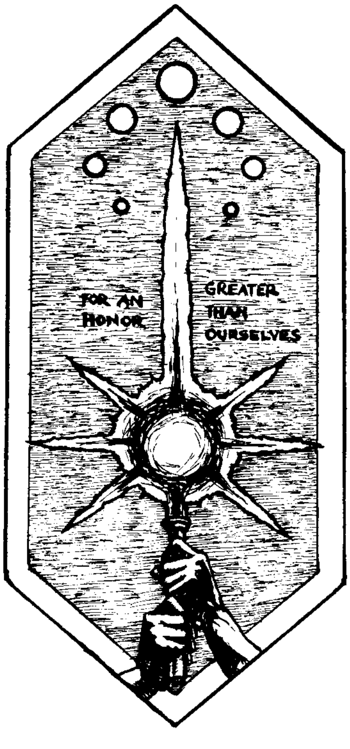
2220 Starguild decision to exterminate Hryken following destruction of the main system spacestation by rebel forces. Imperial Starfleet Spaceartillery section sent to the Seven Worlds for this purpose.

2221 **Starguild—Dragoncrest War**
Massive invasion of the Seven Worlds by Dragoncrest forces. All Available Starguild forces called to respond to this attack. Imperial Starfleet Spaceartillery section newly arrived on the Seven Worlds destroyed by Dragoncrests forces along with most of the Starfleet garrison.

2222-2223 Dragoncrests secure Starfleet superiority in the Seven Worlds. They invade Triton and destroy Starguild forces marooned there. Triton was the Starguild's main military base.

2224 Dragoncrests invade Vallone and destroy the Starguild forces stationed there. Starguild massed fleet counterattacks.

2224-2245 Starguild—Dragoncrest battle for the Seven Worlds. The Starguild could never gain Starfleet superiority in the Seven Worlds and would not commit the cargo carriers required to land enough Starmarines to dislodge the Dragoncrests from Triton or Vallone. Dragoncrests land and destroy all Starmarine forces on Abon-Kar, Dietz, and Marcel. Starguild ground forces were essentially eliminated from the Seven Worlds.
On the worlds of Alpha and Hryken, Seven World rebels eliminated the isolated Starguild forces marooned there and prepared for the eventual invasion by either Dragoncrest or Starguild forces.



"For an Honor greater than Ourselves."

Silver Targas, Seven Sword Legion

2246-2250	Starguild commitment to the Seven Worlds War wanes. Dragoncrests mass for invasion of Alpha.
2251	Starguild abandons the Seven Worlds. The Seven Worlds reestablish a free system from Hryken and Alpha and attempt to negotiate with the Dragoncrests.
2252	**Second Seven World—Dragoncrest War** Dragoncrest invasion of Alpha. Start of the Second Seven World—Dragoncrest War.
2253-2285	Second Seven World—Dragoncrest War centered on Alpha. Dragoncrests supplied from Vallone. Alpha supplied from Hryken. Alpha becomes the stage for an intense ground conflict. Neither Dragoncrest nor Seven World forces can dominate space and the battle for Alpha drags on.
2286-2287	Seven Worlds develops a new advanced stardrive and shatter the Dragoncrest hold on space. Dragoncrests defeated and retire from the Seven Worlds. End of the Second Seven World—Dragoncrest War.
2288-2290	Seven Worlds prepare for the inevitable Starguild attack. Starguild forces mass for invasion.
2291	**Second Seven World—Starguild War** Starguild invade the Seven Worlds. Seven World Starfleet overwhelmed and defeated. Hryken again reduced to rubble.
2292-2294	Starguild reestablishes itself on the Seven Worlds. All Alpha and Hryken survivors isolated on the shattered world of Alpha. Alpha's technology nearly medieval. Trident corporation formed and given the planet Hryken as its holding.
2295-2331	Starguild Golden Age. The Dragoncrest empire has collapsed, no Dragoncrests being seen since 2289. Their empire is open for subjugation and conquest. The Seven Worlds is rebuilt as the gateway into this new territory. Alpha remains undeveloped and largely forgotten.
2332	Reports of a Starfleet advancing on the Starguild from deep within Dragoncrest space stir Starguild massing of forces along the newly acquired territories.
2333-2336	Dragoncrests again attack Starguild forces in the new territories, their drive again targeted for the Seven Worlds. Starguild forces in the new territories overrun. Starguild reserves and main forces called up and assembled at the Seven Worlds.
2337	**Third Seven World—Starguild War** Dragoncrest invasion of the Seven Worlds. This attack was led by Seven World rebels who fled into Dragoncrest territory over 40 years ago. The Third Seven World—Starguild War begins with Seven World rebels supported by Dragoncrests fighting Starguild forces.
2338	Starguild reports of a new enemy attacking on a broad front all along the borders of the new territories. Starguild forces in the new territories overrun.
2339	Spectral attack of human space confirmed. All Starguild forces abandon the fighting on the Seven Worlds to defend other Starguild holdings. Starguild contact with the Seven Worlds ends.
2340-2348	Spectral—Starguild battle for dozens of systems all along the border of known space.
2349	Spectral incursion of Rhand. Starguild contact with Rhand ends.

"Know Only Battle"

Black Targas, Seven Sword Legion

7

MOVEMENT AND COMBAT

Living Steel portrays a world rich in history whose people are vividly real. The characters are likewise real, and it is only natural that the combat system be of equal caliber. This chapter presents the Combat System for **Living Steel**. It is an accurate, challenging system which provides unparalleled excitement, a system which places the player in direct command of the situation. Each second is critical, each decision crucial. The unequaled realism delivers a gaming experience without peer.

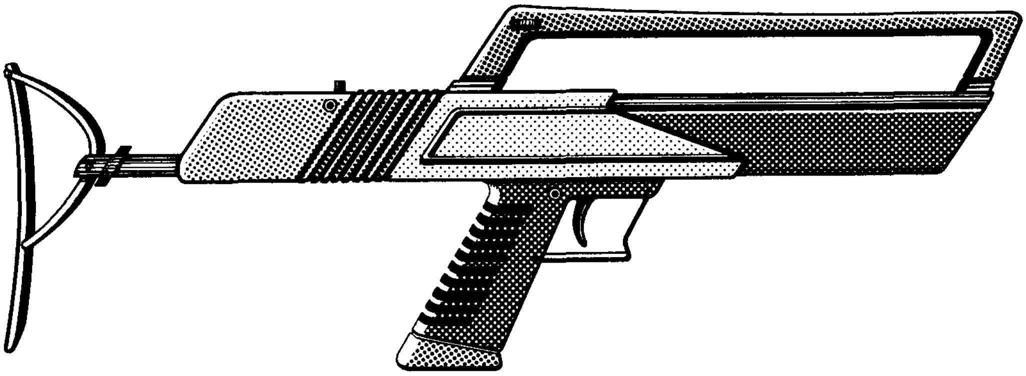
7.1

GAME SCALE AND PLAYING SURFACE

Living Steel uses simultaneous movement and fire. Everything takes place in a continuous stream of two second phases or turns. As the phase count advances, the characters move and fire on the playing surface. Either a hex grid or table top is used as a playing surface. For close-in fighting, such as house-to-house or shipboard actions, a hex represents 2 yards. If using a table top, one inch represents 2 yards. On this scale, detailed terrain can be included: bushes and trees, windows and doors, etc. This scale is used for all movement speeds and ranges in the game rules.

When a larger playing surface is needed, a scale of 20 yards per hex or inch is used. At this scale, movement costs and target ranges should be multiplied by 10.

To set up a game, simply draw outlines of buildings and other terrain features, such as ridge lines and gullies, on the playing surface. As much detail as desired may be included. Remember to draw all features to scale. (Cover the table top with paper first.)



SMP8: Slivergun Machine Pistol

7.2

FACING, MOVEMENT, AND ACTIONS

Movement in a small arms conflict typically consists of a series of quick darts from cover to cover. The figure or marker representing the character is always oriented in a specific direction - the direction he would prefer to move and fire. This is the character's **Facing.** Facing may be in any direction and is not limited by the hex grid. The hexes are used to regulate movement distance only.

The character's Facing determines his **Field of Fire** and **Field of View.** The Field of Fire is the area into which he can fire his weapon. This is a 60 degree cone centered on his Facing. The Field of View is the area he can immediately see, the front 180 degrees centered on his Facing. If the game is being played on a table top or other unmarked surface, the Field of Fire and Field of View are estimated by the Gamemaster.

Actions and movement in the game are rated in terms of Action Counts (AC). The **Action Counts (AC)** are the cost in time to perform the action. The character's **Combat Actions** (Section 1.5, Step 5) are the total number of Action Counts he can perform each phase. The character performs one action at a time until all his Combat Actions are used for that phase.

The **Action Time Table** on the blank character sheet at the end of the book gives the Action Count (AC) costs for many typical actions. As an example, movement in a running stance cost 1 AC per hex, while assuming a firing stance costs 2 AC.

The Gamemaster may determine the cost of any unlisted action using his own judgement. The Action Count cost is equal to two times the time (in seconds) it would take an average man to perform the act. For example, an action which takes an average man 3 seconds to perform, costs 2 × 3 = 6 Action Counts.

The maximum number of hexes a character can run in a given phase is equal to his Maximum Speed (Section 1.5, Step 2).

Example:

The following is the beginning of a scenario. The Action Counts (AC) required to perform each action are given in parentheses.

Trent has a Combat Actions = 8. At the start of play, he is behind the cover of a tree. He wants to move 12 hexes forward to a low wall. In phase 1, he moves 6 hexes forward (6AC). These actions cost him 6 of his Combat Actions for phase 1. In phase 2, he continues moving forward 6 hexes (6AC) and reaches the wall where he goes to an unexposed kneeling stance. Note that Trent did not use all his CA each phase. His speed was limited by his Maximum Speed of 6. Unused actions are lost.

7.3

OFFENSIVE FIRE

The concept of Combat Actions and its application to movement and action has been covered. Now, Offensive Fire can be fit into this framework in terms of the **Odds of Hitting.**

When a shot is fired, several factors modify the Odds of Hitting. These factors are: aim time, firing stance, and target range, motion, and size. Each of the these effects has an **Accuracy Level Modifier (ALM).** The shot's accuracy is the sum of all applicable ALMs. This sum is called the **Effective Accuracy Level (EAL).** The greater the EAL, the greater the Odds of Hitting. These ALMs are described as follows.

Aim Time ALM

The amount of time the character aims has an important effect on accuracy. The greater the aim time, the more accurate the shot, as indicated by the Aim Time ALMs on your character sheet. A shot using 1AC, is the quickest and is a Snap Shot. A shot using the maximum number of AC shown on the **Weapon Data Table**, is the most accurate possible.

To gain the full accuracy of a weapon, a character must "Assume a Firing Stance". That is, he must bring the weapon to a firing position where the aiming sights can be used and recoil handled. This costs 2 Action Counts (Action Time Table on character sheet) which do not count toward Aim Time. When moving or when stationary and not aiming, the character does not carry his weapon in a firing stance.

If the character does not want to use 2 Action Counts establishing a firing stance, he may fire from the hip. Although faster, this is less accurate since the weapon's sights are not used. (There is a −6 ALM for Hip Firing on Table 14B).

"I've spent so much time in front of a gun camera I've got a permanent smile stuck on my face."

Captain Austin D. Blackwell

Target Range ALM

The Target Range ALMs are given on **Table 14A.**

Firing Stance/Situation ALM

The Firing Stance/Situation ALMs are found on **Table 14B.** These cover typical firing stances (standing, kneeling, prone) and various situations such as hip firing.

Movement ALM (optional)

Corrections for target or shooter motion are found on **Table 14C.** The Moving Target ALM is found on the **Moving Target Table** opposite target speed. The Moving Shooter ALM is found on the **Moving Shooter Table** using the shooter's speed. These speeds are the number of hexes moved the phase the shot was fired.

Target Size ALM

Target Size ALMs for common targets are given on **Table 14D.** If the target cannot be found in the common listings, its Target Size ALM can be found opposite its diameter in feet on the **Target Size ALM Table 14E.**

Effective Accuracy Level (EAL)

The **Effective Accuracy Level (EAL)** is the sum of all applicable ALMs and determines the Odds of Hitting. The following is an example of how the EAL is determined using the preceding ALMs.

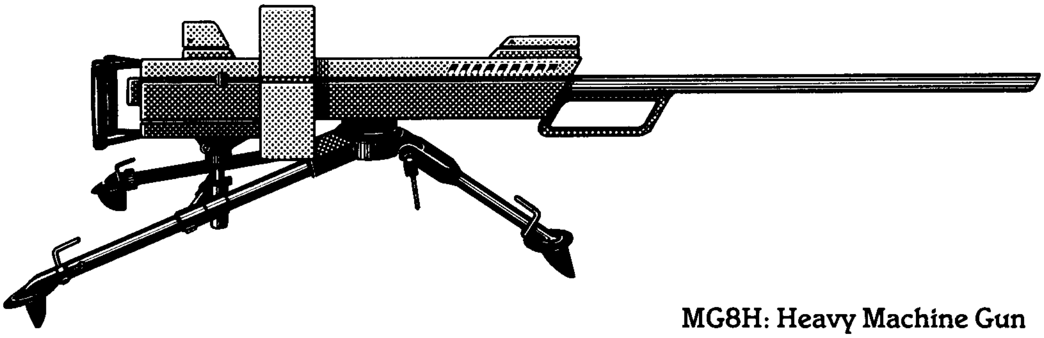
Example: Trent is prone and takes a shot after 6AC of aim. The target is stationary, 50 hexes away, and firing over blocking cover.

Aim Time	ALM = 7	Aim Time 6AC, Figure 1, Section 1.1
Range	ALM = 5	Range 50 hexes, Table 14A
Firing Stance	ALM = 6	Prone, Table 14B
Target Size	ALM = 0	Firing over blocking cover, Table 14D
	EAL = 18	

The **Odds of Hitting** are found on the **Single Shot Odds Table (14F).** Read down the table to the EAL, then across to the Odds of Hitting. In the preceding example, Trent has an EAL = 18, therefore, his Odds of Hitting are 53.

The player now rolls a 00-99 number using two ten-sided dice. If less than or equal to the Odds of Hitting is rolled, the shot hits. If greater than the Odds of Hitting is rolled, the shot misses.

We have now covered the basics of combat: movement and fire. But we have not addressed just how movement and fire fit into the flow of the game. This will be our next subject.



MG8H: Heavy Machine Gun

7.4

GAME FLOW

Game Flow is a continuous stream of two second phases. During each phase, the combatants move, aim, and fire. Each player keeps track of what target he fires upon, his aim time, and the number of shots he takes. When the actions of one phase are resolved, play moves on to the next phase. The Game Flow of each phase is divided into four periods: Allocation, Movement, Response, and Fire Resolution.

Allocation

During the Allocation Period, each player decides how many Combat Actions (CA) his character will spend in the Movement Period. These Combat Actions can be spent on movement or actions from the **Action Time Table** (blank character sheet). The player need not allocate all his Combat Actions (CA), only those he wants to use during Movement. Later in the phase, during the Response Period, he will have the chance to use any CA not expended in the Movement Period. Movement and **Asterisked (*) Actions** (from Action Time Table of the blank character sheet) can only be performed during the Movement Period. Fire and aiming can only be performed in the Response Period, and only if the shooter remains Visible at the end of Movement.

Example: Trent, whose Combat Actions = 8, is hiding behind a waist-high wall. During the Allocation Period, he decides to assume a firing stance over the wall. This costs him 2AC and and leaves him with 6CA for use later in the phase.

Movement Period

Once the players have allocated CA for the Movement Period, all characters simultaneously move and perform those actions. During this period, each player becomes aware of what his character sees as he looks over cover or moves to a different location. Opponents, likewise, become aware of what they see and who becomes visible.

Example: As Trent assumes his firing stance over the wall, he sees an alley with an opponent in a firing stance around the corner of a building. A second opponent dashes across the alley, visible during Movement, but hidden at the end of the Movement Period.

Response Period

During the Response Period, each player decides what to do with any remaining CA not used in the Movement Period. He may use these CA for any action except Movement and Asterisked Actions. These CA are often used for offensive fire. Each player must plan his fire, determining his specific target(s) and aim times.

Example: Trent has 6CA to use during the Response Period. He decides to fire a shot after 5AC of aim at the opponent at the corner and fire one Snap Shot (1AC) at the opponent who darted across the alley.

The opponent, in a firing stance around the corner, was watching the wall and covering his comrade's dash across the alley. He was in his firing stance prior to this phase and did nothing during the Movement Period. If his Combat Actions = 5, he would have all five for use during the Response Period. He sees Trent appear over the wall during Movement and decides to fire at him after 4AC of aim, then duck back behind the corner (1AC).

Examining the preceding examples, we see each character has spent all his Combat Actions for the phase. Any Combat Actions not spent are considered used in pausing to think or catching one's breath. Unused Combat Actions are not carried over into the next phase unless they are associated with an action which cannot be completed that phase, such as a longer aim time.

"A tooth for a tooth,
An eye for an eye,
You get what you give,
Now, Die, Die, Die!!"
Brandy Charlaton

Fire Resolution

Once all players have planned their actions during the Response Period, we move on to the Fire Resolution Period. First, all actions, except Fire, are performed.

In the preceding examples, Trent popped up over the wall and fired. The opponent at the corner started the phase in a firing stance covering the wall, fired, then ducked behind the corner. The second opponent simply ran across the alley. At the end of the phase, neither opponent is visible. Now, the important question: who shot whom? This brings us to Fire Resolution.

Fire Resolution takes place at the end of the phase. During the phase, each character has planned his fire and knows which target(s) he would like to fire at. This works fine if the targets are considerate enough to remain exposed throughout the phase. In reality, few targets will be so cooperative, so we must have some simple rules as to when a target is visible and can be aimed at or fired upon.

A target which was visible at the End of Movement Period may fire and be fired upon. A shooter cannot fire at a target who was not visible at any time during the phase. A shooter firing at a target which was visible during the Movement Period but hidden at the End of Movement can only fire one Snap Shot (1AC aim) at that target.

Example: Returning to the preceding examples, Trent wanted to fire a shot (5AC aim) at the opponent at the corner. Since this opponent was visible at the End of Movement Period, Trent may take his shot with an Aim Time = 5AC.

Trent wanted to fire one Snap Shot at the opponent who dashed across the alley. Since this opponent was visible during Movement and hidden at the End of Movement, Trent can only fire Snap Shot at him.

This framework defines the basic game sequence. During each phase, the players move and plan fire. At the end of the phase, the number of shots taken and the shooter's aim times are determined. The Offensive Fire rules of Section 7.3 then determine which targets, if any, are hit. The Target Size ALM used in the Odds of Hitting depends on the target's last Visible stance or stance at the end of the Movement Period.

More examples of Game Flow, aim times, and Odds of Hitting are found in the Combat Example of Section 7.7, but before we go on, one important point should be stressed. In order to fire or respond to an unsuspected attack, the player must save some of his CA for use in the Response Period. This is why a character typically only advances at his Base Speed. If a player makes a mad dash using all his CA for movement, he cannot fire or take cover during the Response Period.

HIT LOCATIONS AND DAMAGE

When a target is hit, the hit location and damage are found on the **Hit Location and Damage Table (15)**. There are two pages to this table. The first page is for weapons with a **Damage Class (DC)** of 1 to 5. The second is for weapons of DC 6 to 10.

The Hit Location sections of each page are identical and are found on the three left-hand columns labeled "**Look**", "**Fire**", and "**Open**". The first column, "Look", is used when the target is looking over or around blocking cover. The second column, "Fire", is used for a target firing over or around blocking cover. The third column, "Open", is used for a target in the open.

To determine the Hit Location, refer to the appropriate column (target Looking, Firing, or Open) and roll a 00-99 number. Find the number rolled in the appropriate column and move along that line to the fourth column. This gives the Hit Location.

Examples:

A roll of 15 hits a target Firing over blocking cover in the Forehead.

A 09 hits a target in the Open in the Shoulder.

Resolving Damage

The **Physical Damage (PD)** inflicted is found to the right of the Hit Location and depends on the weapon's Damage Class (DC) and **Effective Impact Damage (EID).** The EID measures bullet impact after penetrating armor. The EID is the weapon's RID (Section 1.5, Step 8) minus the target's **armor PF** (Section 1.5, Step 1) for that hit location.

EID = weapon RID − armor PF

If the EID is less than zero, the shot does not penetrate and does no damage.

If the EID is greater than zero but less than the PF, the shot penetrates but is substantially retarded. The bullet has been significantly slowed, and its killing power reduced. When this occurs, find the Physical Damage (PD), by going right from the Hit Location to the **DC = 1** column. Then, find the column with EID less than or equal to the EID of the hit and read off the damage.

Physical Damage (PD) measures wound severity. The greater the PD, the greater the wound severity and chance of incapacitation. A PD entry followed by "H" is in hundreds of points, "K" in thousands, "T" in ten thousands, "X" in hundreds of thousands, and by "M" in millions (e.g., 2H = 200, 3K = 3,000, 7T = 70,000, 1 X = 100,000, and 1M = 1,000,000).

Example: A target wearing body armor with PF = 4 is hit in the shoulder by a weapon whose RID = 7. EID = RID − armor PF = 7 − 4 = 3. Since the EID is greater than zero but less than the PF, the DC = 1 column is used. For an EID = 3, DC = 1, hit in the shoulder, the Physical Damage (PD) = 4 points.

If the EID is greater than the PF, the shot's penetration is essentially unretarded, and the Physical Damage (PD) is found by cross-indexing the EID and Hit Location under the projectile's full Damage Class (DC) column.

Example: A target in body armor with PF = 4, hit in the shoulder by a rifle with an RID = 16, has an EID = 16 − 4 = 12. The EID is greater than the PF, so the weapon's DC = 6 is used. With EID = 12, the Physical Damage (PD) = 300 points.

"We've got you surrounded, so you'd better give up ..... Okay?"

S. Silver

Special Notes

These damage tables are the result of detailed computer generated anatomical models. These models provide the most accurate game simulation of bullet wounds available. This accuracy means bullet wounds from large caliber rifles are devastating. Some role-players may find this hard to incorporate into their games. But don't give up! Any level of lethality desired can be readily introduced. For one, the use of body armor and rapid medical aid greatly improve character survival. If this is not enough, simply divide the damage received by 10. This greatly increases character life span while not sacrificing too much realism.

Note that values on the tables show large jumps in physical damage. This models penetration into a vital area, such as the heart. Repeated values indicate the bullet has exited the other side of the target (overpenetrated).

7.6

DISABLING INJURIES AND KNOCKOUT

Each time a character is wounded, he may fall unconscious or become dazed. If this occurs, he is down and out of combat; if it doesn't, he may continue fighting restricted only by Disabling Injuries.

A **Disabling Injury** occurs whenever a character takes over 5 PD to an arm or 10 PD to a leg from a single wound. The Disabled limb cannot be used until the injury heals.

The chance of being knocked out depends on his **PD Total** and **Knockout Value (KV)**, (Section 1.5, Step 6), and is given on the following Knockout Table. Each time a character is wounded, the player enters the **Knockout Table** at the new PD Total to find the Knockout Chance. A 00-99 **Knockout Roll** is then made. If less than the Knockout Chance is rolled, he has been knocked out. If greater than or equal to the Knockout Chance is rolled, he remains conscious and is limited only by Disabling Injuries. The Knockout Table has been reproduced on the blank character sheet for easy reference.

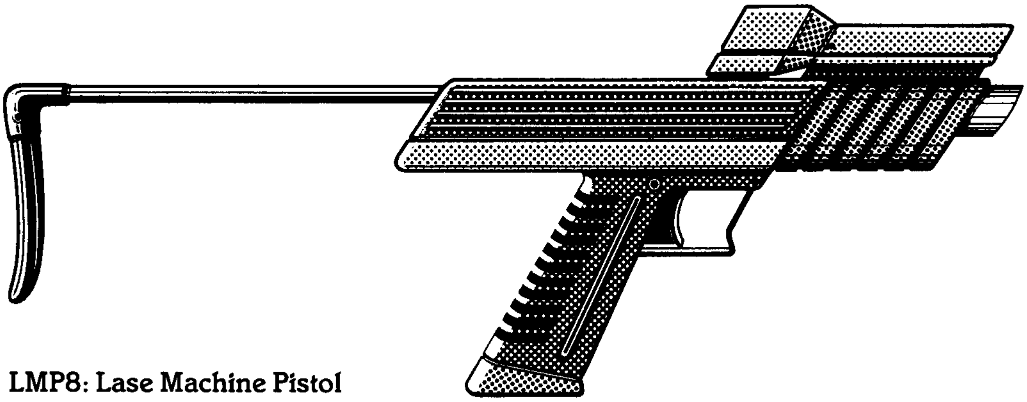
Knockout Table

Total PD	Knockout Chance
under KV÷10	00
over KV÷10	10
over KV	25
over 2 × KV	75
over 3 × KV	98

Example:

Trent has taken 14 PD from previous wounds and is hit by a shot causing another 4 PD. Trent's Knockout Value (KV) is 48, and his PD Total is now 14 + 4 = 18. Since his PD Total is over his KV ÷ 10 but less than his KV, he must roll a 10 or higher to remain conscious.

If knocked out, the character may regain consciousness before the battle is over. Cross-indexing the PD Total with a 0 to 9 random roll in the **Incapacitation Time Table (16B)** gives the time required to regain consciousness. See Section 8.3 for combat capabilities following recovery.



LMP8: Lase Machine Pistol

7.7

COMBAT EXAMPLE

Returning to the examples of Section 7.4, we left Trent kneeling behind a wall. His squad is trying to clear a town of Visser elements. An opponent is firing down an alley 25 hexes from his position. During the Allocation Period, Trent decides to assume a firing stance over the wall. This uses 2 of his 8 CA. During the Movement Period, Trent establishes his firing stance. During the Response Period, he takes aim at an opponent (6AC) and fires. The opponent was Visible at the End of Movement Period, so Trent's aim time is 6AC. The EAL (Section 7.3) for this shot is:

Aim Time	ALM = 7	Aim Time 6AC, Figure 1, Section 1.1
Target Range	ALM = 10	Range 25 hexes, Table 14A
Firing Stance	ALM = 3	Kneeling, Table 14B
	ALM = 4	Horizontal Rest on wall, Table 14B
Target Size	ALM = 0	Firing Around Blocking Cover, Table 14D
	EAL = 24	

The Single Shot Odds Table (14F) is now entered with the EAL of 24 giving an Odds of Hitting of 90. Trent rolls a 97, so the shot misses.

Seeing that he missed, Trent maintains his firing stance and aims at the opponent throughout the next phase. The opponent, startled by Trent's shot, ducks back and vanishes during the Movement Period. The opponent was Visible at the beginning of the phase but hidden at the End of Movement so Trent is forced to fire just one Snap Shot before the opponent ducked away. His EAL is:

Aim Time	ALM = −4	Aim Time 1AC, Figure 1, Section 1.1
Range	ALM = 10	Range 25 hexes, Table 14A
Firing Stance	ALM = 3	Kneeling, Table 14B
	ALM = 4	Horizontal Rest on wall, Table 14B
Target Size	ALM = 0	Firing Around Blocking Cover, Table 14D
	EAL = 13	

The Single Shot Odds Table (14F) gives an Odds of Hitting of 22. Trent rolls a 07 for the second shot which is a hit. The opponent was hit as he ducked back.

Referring to the Hit Location and Damage Table (15), Trent rolls a 78 for the Hit Location. The opponent was firing around blocking cover so the 2nd column, "Fire", is used. This gives a Hit Location of Arm Bone. The opponent was unarmored so the EID = Trent's weapon RID at range 25 hexes (40 hex entry) = 14. Trent's weapon Damage Class (DC) at range 25 hexes = 2, so the damage done is 23PD.

The opponent's arm is disabled, and he must make a Knockout Roll to remain conscious. If his Knockout Value (KV) = 21, his Knockout Roll must be greater than or equal to 25 to remain conscious. He rolls a 19 and passes out.

FULLY AUTOMATIC WEAPON FIRE

Fully automatic weapon fire is done in half second bursts and is often tracked across the target(s). The original point of aim is often to one side of the target(s) and the Arc of Fire tracked across as shown in **Figure 2.** A maximum of four burst can be fired each phase.

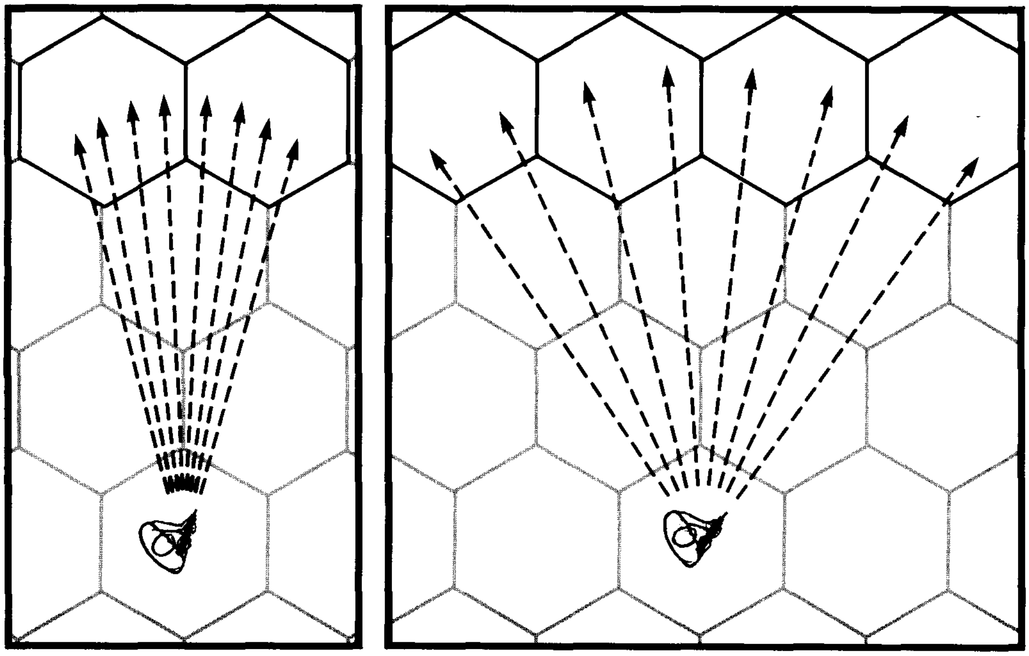


Figure 2A **Figure 2B**

The Arc of Fire determines overall effectiveness since it defines bullet distribution. In **Figure 2A,** the Arc of Fire is 2 hexes, and there are 4 bullets into each hex. In **Figure 2B,** the Arc of Fire is 4 hexes, and there are only 2 bullets into each hex.

"You are now free men. Free to swear fealty to Me."

Captain Austin D. Blackwell

Burst Elevation

To find the Odds of Hitting, the Elevation of the burst must first be determined. This Elevation is the height of the burst relative to the target(s). If the shooter properly aims, the burst Elevation will correspond to the target(s) rather than going over their heads or into the ground.

To determine if the burst is at the proper Elevation, the burst's EAL must be found. This automatic weapon EAL is identical to an EAL for single shot fire except the **Automatic Elevation target size modifier (Auto ELE)** is used instead of the normal Target Size ALM. The Auto ELE target size modifier is found on **Table 14D** for common targets and measures target height. For nonstandard targets, it is found on **Table 14E** opposite target height in feet. The Auto ELE is summed with the other ALMs, as usual, and this EAL is used with the **Burst Elevation Odds Table (14F).** If the result of the 00-99 roll is a hit, the burst is at the proper Elevation. If the result is a miss, the burst was either too high or too low and misses.

Arc of Fire

If the burst is at the proper Elevation, the Arc of Fire must be determined. The shooter designates a burst initiation hex (or position on the table). This is the position at which the Arc of Fire begins. The shooter then designates over which hexes the burst is swept. The minimum width of the Arc of Fire depends on target range and the shooter's control of the weapon's recoil. This is given by the weapon's **Minimum Arc** and has been recorded on the character sheet for each target range. The Minimum Arc is the minimum number of hexes over which the burst must be tracked. The maximum width of the Arc of Fire is limited only by the shooter's Field of Fire. All targets at the proper Elevation, which are in the hexes covered by the Arc of Fire, may be hit. In the case of contoured terrain, or if a question arises as to which targets are eligible, common sense should be used (e.g., a target behind a hill cannot be hit).

> **"Oh you take the low road and I'll take the high road and I'll rain death down all O'er Ya."**
>
> Fred the Singing Bandit

To determine if a target is hit, enter the **Automatic Weapon Hit Chance Table (14G),** cross-indexing the weapon Rate Of Fire and width of the Arc of Fire in 2 yard hexes. This number is the **Hit Chance.** The shooter rolls a 00-99 number. If less than or equal to the Hit Chance is rolled, the target has been hit by one round. The same is done for each target in the Arc of Fire. If the Hit Chance is an asterisk (*) followed by a number, it is the number of rounds which hit each target. Thus, a *2 indicates a target has been hit by 2 rounds. Note that the maximum number of targets which can be hit is limited by the weapon's Rate Of Fire.

The shooter is capable of continuous bursts of automatic fire subject to ammunition limitations. The Elevation EAL for each succeeding burst is the preceding burst's EAL minus the weapon's **Sustained Automatic Burst (SAB)** value. This accounts for the increasing difficulty of controlling a weapon on autofire.

Example:

Trent fires a burst from a FMP8 Machine Pistol while rushing two opponents. The opponents are 5 hexes away, exposed and kneeling. Trent fires from the hip after 2AC aim. The EAL is:

Aim Time	ALM =	3	Aim Time 2AC, Figure 1, Section 1.1
Range	ALM =	22	Range 5 hexes, Table 14A
Hip Fire	ALM =	−6	Table 14B
Shooter Motion	ALM =	−15	Shooter moved 2 hexes the phase the burst was initiated, Table 14C
Target Size	ALM =	11	Auto ELE, Exposed-Kneeling, Table 14D
	EAL =	15	

Using the Burst Elevation Odds Table (14F), the Elevation Odds of Hitting are 57. Trent rolls a 42 which indicates the burst is at the proper Elevation. His Minimum Arc = .2, so he must track the burst over a minimum of .2 hex. He chooses to track the burst over 3 hexes to cover both opponents in the Arc of Fire. His Rate Of Fire = *12. The Automatic Weapon Hit Chance Table (14G), with Rate Of Fire = 12, and Arc of Fire = 3 hexes, gives a Hit Chance = 50. Trent rolls an 11 and hits the first opponent with one round. He rolls an 66 and misses the second opponent.

Seeing that he missed, Trent continues to spray the area with a second burst. To determine if this second burst is at the proper Elevation, the prior burst's EAL of 15, minus the weapon's SAB value of 1 is used. The second burst's EAL = 15 − 1 = 14. Trent rolls a 23 and the burst is, again, at the proper Elevation. This time Trent puts the burst into the remaining target's hex with an Arc of Fire = .2. The Hit Chance for Rate Of Fire = 12 and Arc of Fire = .2 is *8. Trent hits the opponent with eight rounds.

EXPLOSIVE WEAPONS AND GRENADES

Explosive Weapons are found in the **Explosive Weapon Section** of the **Weapon Data Supplement.** The values on the left side of the Table are identical to those of the Point Fire Weapons. The RID on the left side is the projectile's RID and gives its penetration capability. It is primarily used to determine the projectile's penetration against armored targets. If the RID is less than or equal to the armor PF, the projectile detonates on the armor's surface but does not penetrate. The explosion is treated as a blast outside the armor. If the RID is greater than the armor's PF, the explosive penetrates and all personnel within take damage from the explosion just inside the armor's wall.

The values on the right side of the Table are the weapon's explosive data. The RID and DC give the penetration and damage of the explosive's shrapnel depending on target range from burst in 2 yard hexes. The **Base Shrapnel Hit Chance (BSHC)** is the chance of hitting each target in the burst area with shrapnel. The **Base Concussion (BC)** gives the concussion damage of the explosive. Use of these values will be described later in this section.

Grenades and Explosives data are found in the **Grenades/Explosives Section** of the **Weapon Data Supplement.** The **Arm Time** is the time, in AC, to arm the grenade; the **Fuse** entry, its fuse length in two second phases; and the **Range,** the distance it can be thrown in 2 yard hexes. The RID, DC, BSHC, and BC are the same as described in the preceding paragraph.

Explosive Weapon / Grenade Accuracy

Explosive Weapons are often aimed at a hex position, building, or object, rather than a person. The **Target Size ALM of a hex is 0.** The Target Size ALM of a doorway, window, or building is found on **Table 14E,** opposite target diameter in feet. Note that the Target Size ALM of 0 for a hex is not for a 2 yard diameter object. It is an effective target size as viewed from a standing position. If the shooter is firing from a highly elevated position, the hex ALM can be taken from **Table 14E** for a 2 yard diameter target.

An Explosive Weapon's EAL is found in the same manner as conventional weapons, using the preceding Target Size ALM. A thrown grenade's EAL is the sum of the target Range ALM, thrower's Skill Accuracy Level (Section 1.5, Step 3), Target Size ALM, and applicable Movement ALMs.

The EAL is used on **Table 14F** to find the Odds of Hitting. If the hit roll is greater than the Odds of Hitting, the shot misses. For a miss, refer to **Table 14F** and find the EAL entry with odds just greater than the number rolled. The difference between this EAL and the EAL required to hit is the number of 2 yard hexes by which the shot misses. Thus, for a shot with EAL = 20 (67 to hit), if an 82 is rolled, the shot misses by 3 hexes, as an 82 would hit for an EAL = 23. The miss distance gives a ring of hexes around the target hex. Roll randomly to place the hit in this ring. The placement of the shot has now been determined. Damage to targets is resolved as follows.

Explosive Damage

Explosives have two damaging effects: shrapnel and concussion. The **Base Shrapnel Hit Chance (BSHC)** measures shrapnel generation while the **Base Concussion (BC),** concussion damage. These values are found on the right side of the Weapon Data Tables depending on target range from burst.

"We could at least have a cease fire long enough to loot the dead and wounded."

Gill the Treacherous

The Base Shrapnel Hit Chance (BSHC) is a 00-99 number and is the chance of hitting with shrapnel. Roll a 00-99 number for each target in the burst area. If less than or equal to the BSHC is rolled, the target is hit by one piece of shrapnel. A "C" on the Table is for a target in Contact with the explosive. An asterisk (*) preceding the BSHC gives the number of shrapnel pieces hitting.

Shrapnel Hit Location and Damage are in accordance with Section 7.5 using the RID and DC from the right side of the Weapon Data Table. In determining multiple hits from shrapnel, the Hit Location and Damage for each piece can be figured separately, or, for simplicity, all pieces can be run as hitting the same location. In this case, one Hit Location is rolled, and the resulting Physical Damage is multiplied by the number of pieces hitting.

To find the Concussion Damage, enter the right side of the Weapon Data Table at the target range from burst and find the Base Concussion (BC). The Base Concussion (BC) is the Physical Damage (PD) points done to a target in the open. The **Blast Modifier Table (14H)** contains modifiers to this Base Concussion. The actual Concussion Damage is the BC times appropriate Blast Modifiers.

"Suicide or Death ...... It's your choice!"

Captain Austin D. Blackwell

PD = BC × Blast Modifiers.

The total Explosive Damage is the sum of the shrapnel and concussion damage.

Explosive Damage = Shrapnel Damage + Concussion Damage

Example:

Din is caught in an alley with an empty rifle as two opponents charge his position. He has time to arm a GF8C grenade and, listening to the opponents' approach, throws it around the corner, aiming at point X of **Figure 3**.

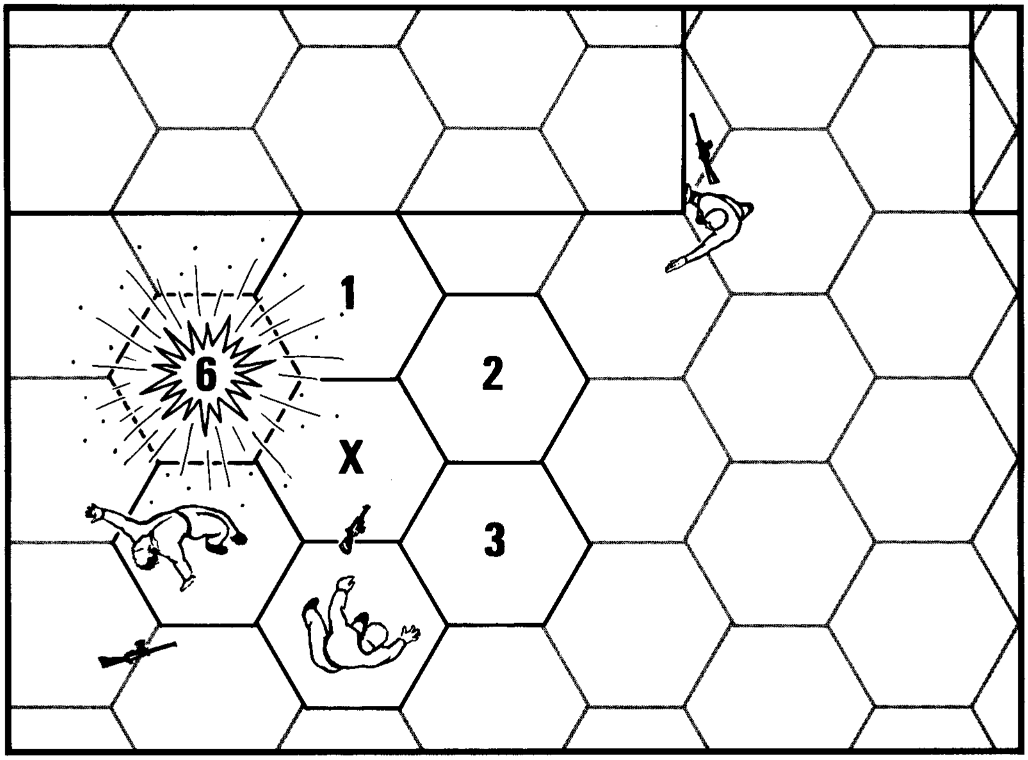


Figure 3

Din's EAL for this throw is:

Range	ALM = 25	Range 3 hexes, Table 14A
Skill	ALM = 0	Skill Accuracy Level
Target Size	ALM = 0	Hex grid target size
	EAL = 25	

Din's Odds Of Hitting the intended target hex are 94. Din rolls an 95 and misses. The EAL with odds just greater than the number rolled is EAL 26 (Odds 96). So Din missed his target hex by 26 − 25 = 1 hex. The hex hit is determined randomly from those one hex from the intended target. Using a 1 to 6 roll, it lands in hex number 6 (see Figure 3). The grenade had an Impact fuse so explodes this phase. This explosion is resolved at the end of the phase.

Opponent 1 is caught one hex from the burst and is hit by two pieces of shrapnel since the BSHC is *2. The Base Concussion (BC) is 115, so, in addition to the shrapnel hit, he receives BC × Blast Modifier = 115 × 1 = 115 PD in concussion damage.

Opponent 2 is two hexes from the blast and the BSHC is 54. Din rolls a 64 and misses the opponent with shrapnel. The BC is 35, so the opponent receives 35 × 1 = 35 PD in concussion damage.

Din was four hexes from the blast and behind solid cover around the corner. He is immune to shrapnel damage, and the concussion damage he receives is the BC = 11 (range 4) times the Blast Modifier = .01 (behind solid cover), 11 × .01 = .11 = 0 PD.

7.10

VEHICLES IN COMBAT

The following are a set of rules for including a vehicle in combat. When shooting at a vehicle, the entire vehicle can be the target, or specific areas within the vehicle, such as the driver, power train, or suspension. The Target Size ALM for the vehicle as a whole is given in the **Vehicle Data Table (9A)**, while Target Size ALMs for specific areas are found on **Table 9B**.

If a hit is scored on the entire vehicle, the Hit Location is found on the Hit Location Row of **Table 9B** with a 00-99 roll. Just under this hit location is the armor PF covering that area of the vehicle. If the shot penetrates a passenger or driver area, the passenger seat hit is determined randomly. Any passenger seated there is hit as if he were behind cover. For automatic fire, use common sense and layout of passengers to determine those in the Arc of Fire. All those in the Arc of Fire are subject to attack as targets behind cover.

Example:

The passenger area of a Ground Truck is hit by a single round of lasefire. Examining Table 9A indicates a Ground Truck has a passenger capacity of 40 people. If there were 4 people in the truck, the chance one of them was hit is determined by a 1-40 roll. If a 1 to 4 is rolled, one of the four was hit. If a 5 to 40 is rolled, the shot passed through an empty seat.

Each penetrating round into the vehicle will potentially damage the system hit. For each penetrating hit, sum the roll of three six-sided dice, the system's **Damage Number** (from Table 9B), and **Projectile Bonus** (from Table 9C) to find the **Damage Sum.** The damage sustained is found opposite this Damage Sum on **Table 9D.**

Example:

A single round of lasefire penetrates the Driver compartment of a Ground Car. Damage to the Driver would follow the normal rules of Section 7.5 for a target behind cover. Damage to the Driver Compartment is based on the Damage Sum. The Damage Sum is determined by summing the roll of three six-sided dice, the Damage Number, and the Projectile Bonus. If a 9 were rolled on three six-sided dice, the Damage Sum would be 9 − 2 − 2 = 5. The damage sustained would be found on Table 9D and is 1/6 Loss of Function.

Damage entries such as 1/6 give the chance of each function in that system being destroyed. A 1/6 indicates a six-sided dice should be rolled. If a 1 is rolled, the function of the system is destroyed. If the system includes multiple functions, a six-sided dice would be rolled for each function separately.

Example:

The Driver compartment of a Ground Vehicle includes the functions of Non-essential electronics, Steering, and Brakes. If a 1/6 damage were done to this system, a six-sided dice would be rolled for each of these functions. On the roll of a 1, that function has been destroyed.

"Inconsistency is the key to flexibility."
Judge Barons

For purposes of immediate game play, once a function is lost it is inoperative. An asterisk (*) following a function indicates that loss of that function disables the entire system. The effect of these failures is determined by the Gamemaster, and depends on the situation. Loss of the Grav Generator in a Grav APC is much less serious if the vehicle is sitting on the ground than at 30000 ft.

For campaign play, the level of damage sustained may be found on **Table 9E.** Roll a six-sided dice and add the result to the Damage Sum. Enter **Table 9E** with this sum and read off the **Damage Level** sustained. These Damage Levels are described as follows. Simple Success Rolls for making repairs is given in the **Action / Reaction Table (6).** More detailed repair rules are found in Chapter 9.

MIN	Requires minor rework
MAJ	Requires major rework and some replacement parts
REP	Requires major rework and replacement of critical parts
No REP	Complete system replacement required

The following describes the various systems and functions within the vehicles of **Table 9B.** Disabling of each function would be determined separately based on the odds from **Table 9D.** An **Asterisk (*)** following a function indicates loss of that function disables the entire system.

Driver (Ground Vehicle)

This system includes the driver and various instrumentation. Functions include Non-essential Electronics, Steering, and Brakes.

Driver (Grav Vehicles)

This system includes the pilot and Non-essential Electronics, Remote Visual, Flight Control Electronics*, Ejection System, and Weapon Fire Control functions.

Passenger

Area assigned for passenger seating or open for cargo.

Passenger Void

Vacant passenger area representing leg room and headspace. Cargo fills this area when the passenger area is used for cargo transport.

Power Train (Ground Vehicle)
This system takes electrical power from the power supply and converts it to mechanical power at the wheels. Functions include the Turbine*, Power Train*, and Control Electronics*.

Suspension
Functions include Shocks and Suspension, Brakes, Axles*, and Steering Linkage.

Wheels
Loss of a wheel due to 1/6 to 5/6 damage entry limits vehicle speed to 10 HPP. A Total System Out damage entry immobilizes the vehicle.

Power Supply (Ground Vehicle)
This system includes a Mobile Power Receiver and power conversion system which picks up transmitted power from a Power Relay Station and converts it to electrical power. Functions include the Mobile Power Receiver*, Power Converter*, Control Electronics*, and Emergency Power. Emergency Power is a simple power cell which provides electrical power for the vehicle's non-drive functions in the case of a power failure (capacity = 12 hours).

Combustion Engine (All Terrain Vehicles)
This is a conventional internal combustion engine. It burns alcohol and is air breathing. Functions include the Engine*, Starter and Battery, and Thermal Control (* after 10 minutes).

"Megalomania is its own reward."

Judge Barons

Fuel Tank (All Terrain Vehicle)
Alcohol storage tank for All Terrain Vehicles. If the damage entry from **Table 9D** is a Total System Out, the tank explodes and burns. The vehicle will be engulfed in flames within 1-2 phases.

Grav Field Generator (Grav Vehicle)
This provides the propulsive power of a Grav Vehicle. The system is reactionless, noiseless, and only functions within range of a large gravitational body such as a moon or planet.

Non-Essential Electronics (Grav Vehicle)
Functions include Communications, Navigation, Reentry and suborbital navigation, Space docking controls, Auto-pilot, Ground radar, Electronic counter measures, and Landing cycle terminal guidance.

Remote Visual Guidance Cameras (Grav Vehicle)
Externally mounted cameras and radar which relay images to the pilot who is safely behind armor panels. If these sensors are destroyed, the pilot must blow off his armor panel to pilot the craft. The PF of the remaining visor is 30 points.

Power Supply (Grav Vehicle)
Lase modulated fusion power plant which uses Startech solid fuel. It supplies the electrical power to the Grav Field Generator.

Landing Gear (Grav Vehicle)
Functions include Deploy, Retract, and Basic support structure. The vehicle cannot go suborbital without retracting its landing gear.

Turret (ATFV and Grav Vehicle)
Vehicular weapon turret which includes Weapon Traverse, Weapon Elevation, Ammunition Feed*, Fire Control*, and the Weapon* itself.

Weapon Racks (Grav APC)
Internal weapon racks for air-air and air-ground missiles. Functions include Weapon Deployment*, Fire Control*, and the Missiles* themselves.

HAND-TO-HAND COMBAT

The following is a simple hand-to-hand combat system. Those of you who want more detail may refer to the **Phoenix Command Hand-to-Hand Combat System** or **Rhand Morningstar Missions** medieval fantasy role-playing system.

Hand-to-Hand combat has been divided into three categories; Unarmed Hand-to-Hand Combat, Armed Hand-to-Hand Combat, and Grappling (which uses the Unarmed Hand-to-Hand Combat skill).

These rules assume the opponent's are aware of each others actions and are taking appropriate defensive moves. The Gamemaster should modify a character's Skill Level to account for situations such as surprise and injury using the Skill Level Modifiers of **Table 17D.** The rules likewise assume the opponents have near average characteristics. The optional Base Odds Modifier rules of Section 2.4 may be used to modify a character's Skill Level for Hand-to-Hand combat based on the Strength and Agility characteristics.

Unarmed Hand-to-Hand Combat

Table 17A is a list of Hand-to-Hand combat actions including hand strikes, kicks, and blocks. Character's select their actions each phase based on the action's cost in **Action Counts** and **Combat Actions** available. Each character now rolls to see if he hits using the **Success Roll** rules of Section 2.4.

Damage is determined for each blow which hits on **Table 17E.** To determine the **Hit Location** roll a 00-99 number and enter the appropriate line of **Table 17E.** Now determine the severity of the blow by an appropriate roll from the **Impact Damage (ID)** column of **Table 17A.** Cross-indexing this ID with the target's armor **Blunt Protection Factor (BPF)** (from the Armor Data Table of the High-Tech Weapon Data Supplement) determines damage done. Knockout follows the standard rules of Section 7.6.

The **Block** and **Dodge** entries of **Table 17A** are purely defensive actions. Block and Dodge actions consume the entire phase and are the only actions which may be taken that phase, no offensive blows may be thrown. When a character Blocks or Dodges he may make a Success Roll against each blow which would otherwise hit. If he successfully makes his Success Roll, he blocks or dodges the blow.

Example: In the first phase of combat, Trent takes two punches at an opponent who chooses to Block. Trent is 5th skill level in Unarmed Combat while the opponent is 3rd. For a punch, Trent's Success Roll is a 9 − 3 (opponent's Skill Level) + 5 (Trent's Skill Level) = 11. Trent rolls an 8 for the first blow and an 11 for his second on three six-sided dice. This means he would hit with both blows had the opponent not blocked. The opponent's Success Roll for his Block is 13 − 5 + 3 = 11. He rolls a 10 against Trent's first blow and successfully blocks it. He rolls a 14 failing his second Success Roll and is hit by Trent's second punch.

Trent rolls a 23 for hit location on Table 17E and hits the opponent in the head. He rolls a 2 for the Impact Damage of the blow. The opponent was unarmored (BPF = 0), so takes 2 Physical Damage (PD) points.

"That's not a jury of my peers, they're all common citizens!"

Captain Tyrell
Ex-Starfleet Commander

Armed Combat

Table 17B is a list of Armed Combat Hand-to-Hand actions. Also included are a number of common melee weapons. Each phase each opponent may decide to Attack, Dodge, or Block. Only characters who have an object with which to block the opponent's weapon may Block. A Dodge may be performed by an armed or unarmed person. The number of attacks which may be taken each phase is given by the **Weapon Speed (WS).** The WS is found on **Table 17B** for common melee weapons or on the Weapon Data Tables for small arms. A WS of 1.8 indicates 1 attack and an 80% chance of a second each phase, a WS of 2.1 indicates 2 attacks and a 10% chance of a third, etc.

The Odds of Hitting follow the rules for Unarmed Hand-to-Hand Combat. The only difference is the Success Roll for hitting is the attack's Base Odds plus attacker's Skill Level plus attacker's **Weapon Class (WC).** The WC is given on **Table 17B** or the Weapon Data Tables.

When using blunt weapons, Hit Location and Damage follow the rules for Unarmed Combat. For thrusts with knives or bayonets, hit location and damage are resolved on **Table 15** under the Damage Class (DC) = 2 column sets. An EID = ID – armor PF is used. If the EID is less than or equal to zero, the stab did not penetrate and only Blunt damage is done. This Blunt damage is found on **Table 17E** by cross-indexing the thrust's ID and target's armor BPF.

"If you cooperate we'll reduce the charges from hit and run murder to littering."

Judge Barons

Example: A pair of Vissers armed with empty SMP8 sub-machineguns decide to slug it out. Their weapon's have a WS = 2.1, so each have two blows and a 10% chance of a third. Visser 1 rolls a 45, while Visser 2 rolls a 69, so neither get a third blow. Each is 3rd Skill Level. Visser 1 decides to take two Cutting blows while Visser 2 takes two Stabs. Their Success Rolls are 12 – 3 + 3 + 0 (WC) = 12 for the Cuts and 8 – 3 + 3 + 0 = 8 for the Stabs.

Visser 1 rolls a 15 and a 13 and misses while Visser 2 rolls a 7 and a 15 and hits with one blow. Since the SMP8 has no bayonet, it does Blunt Damage on Table 17E. Visser 2 rolls a 55 for Hit Location and hits Visser 1 in the body. For Impact Damage (ID) he rolls a 5 (see IDs on the Weapon Data Table). The target was unarmored (BPF = 0) and takes 11 Physical Damage (PD) points.

Armed Combat Attacks (optional): An optional method of determining the number of attacks a character gets per phase is to divide the character's Combat Actions (CA) by 4 and multiply by the Weapon Speed (WS). The character's CA should be based on his appropriate Hand-to-Hand Combat Skill.

Grappling

In these Grappling rules the primary objective of each opponent is to Pin the other. Three primary actions are involved, each of which is described as follows.

Grab: Grabbing the opponent is the first step in a successful attack. Once a person has been successfully grabbed, he has an ALM of –40 for any shot at the opponent who grabbed him and an ALM of –30 to any shot at any other target. A person who has been grabbed halves his damage bonus for striking actions and is free to grapple his assailant, strike his assailant (half ID), or attempt to Escape.

Escape: If an Escape is successful, the opponents are free and disengaged. When only one opponent tries an Escape and succeeds it means he successfully throws off the other, when both of them try Escapes and either succeed, they break combat and disengage. Opponents end up on their feet facing each other after a successful Escape.

Pin: When an opponent is Pinned, his limbs have been immobilized. A Pinned person can attempt no action except to Escape Pin. In order to Pin an opponent, you must first successfully Grab him.

When Grappling, each person attempts a move on his opponent. Find each person's Success Roll by adding the person's Unarmed Hand-to-Hand Combat Skill Level to the move's Base Odds from **Table 17C** (see Section 2.4). Each opponent then tries to make their Success Roll. If one succeeds and the other fails, the position is changed to reflect the successful move. If both fail, position remains constant from the last phase. If both succeed at moves which cannot coincide, such as two Pins, position remains constant from the last phase.

8

MEDICAL AID AND RECOVERY

After a battle, all wounded characters must see if they will live. There is no set point at which a character dies; even the seriously wounded may survive, especially if medical aid is available.

8.1

THE BASIS FOR RECOVERY

During combat, the player keeps a running total of the **Physical Damage (PD)** points taken. This PD Total determines the **Damage Total**, which measures the severity of his injuries. The greater the Damage Total, the more severe the injuries and the greater the chance of dying. The Damage Total is:

$$\text{Damage Total (DT)} = 10 \times \text{PD Total} \div \text{Health characteristic}$$

Example:
Trent received two wounds of PD 14 and 4. His Health = 12, so: Damage Total (DT) = $10 \times (14 + 4) \div 12 = 180 \div 12 = 15$.

Whether a character lives or dies is determined after the **Critical Time Period.** This is the time during which he must receive medical aid if it is to be effective. At the end of the Critical Time Period, he must make a **Recovery Roll.** If he makes this Recovery Roll, he will survive. If he fails, he dies.

The length of the Critical Time Period (CTP) is given opposite the Damage Total (DT) on the **Medical Aid And Recovery Table (16A)** and depends on the type of medical aid available.

Consider Trent, with a DT = 15. His CTP is found on **Table 16A** under the column "No Aid" and is 72 hours. If he does not receive medical aid in 72 hours, his Recovery Roll (RR) would also be taken from the column, "No Aid", and would be 85. Trent must then roll a 00-99 number less than or equal to his RR of 85 to survive. If he makes this roll, the time in days for his injuries to heal is given by the Healing Time (HT), found on **Table 16A** opposite the DT. In Trent's case, it is 30 days.

8.2

MEDICAL AID

Naturally, **Medical Aid** greatly improves the chance of survival. This improvement depends on the type of aid available and is given on the **Medical Aid and Recovery Table (16A).**

Medical aid has been divided into four categories: "First Aid", "Aid Station", "Field Hospital", and "Trauma Center". Each category has its own Critical Time Period (CTP) and Recovery Roll (RR) opposite the Damage Total (DT).

There are six Recovery Roll (RR) entries under the Trauma Center category. Each of these represents a hospital of increasing Technology Level. The time period represented by each Technology Level is given on **Table 16C.**

Example:
A character has a Damage Total (DT) = 3500. Referring to the Medical Aid and Recovery Table (16A), under the column labeled "No Aid", we see his CTP = 81 phases. He has 81 phases to receive medical aid before he must make his Recovery Roll (RR) (which, by the way, is not good). Luckily, a medic arrives before the end of his CTP and treats him. Referring to the column labeled "First Aid" at the DT of 3500, we see the medic increases his CTP to 2 hours. His RR is still a 00, however. Fortunately, he is rushed to a Bondsmen (Tech Level 15) Trauma Center before the end of 2 hours. His new CTP is now 18 days and his RR = 52. So, 18 days after the injury, he rolls his 00-99 Recovery Roll. If less than or equal to a 52 is rolled, he survives; if greater than a 52 is rolled, he dies. If he survives, it takes 88 days for his injuries to completely heal.

8.3

WOUNDED CAPABILITIES AND HEALING

Whenever a character is suffering the effects of an unhealed injury, his physical capabilities are reduced. This reduction depends on the character's status: Recent Wounds—Character Makes Knockout Roll; Old Healing Injuries; and Recent Wounds—Character Fails Knockout Roll.

Recent Wounds—Character Makes Knockout Roll

Recent wounds are wounds suffered during the current combat. One hour after injury they are considered Old Healing Injuries. As long as the character makes his Knockout Roll, he is affected only by Disabling Injuries (Section 7.6) and can continue combat subject only to those limitations. These fresh injuries, if not disabling, are ignored due to the effects of adrenalin and other adjustments made by the body during crisis. Disabling injuries remain in effect until completely healed.

Old Healing Injuries

From one hour after the injury until the time the wounds heal, the character suffers a "Days" ÷ 20 point penalty to his Combat Actions. "Days" are the number of days remaining till the injury heals. The initial Healing Time is taken from the **Medical Aid and Recovery Table (16A)** under the column labeled Healing Time (HT).

Example: Trent has a Damage Total = 15 and, therefore, a Healing Time (HT) = 30 days. So, from one hour after his injury to the end of the first day, he has a 30 ÷ 20 point penalty to his Combat Actions. One week later, he has an HT of 30 days minus one week (7 days) = 23 ÷ 20 point penalty to his CA.

Recent Wounds—Character Fails Knockout Roll

A character who fails his Knockout Roll is incapacitated. The time he remains dazed or knocked out is found on the **Incapacitation Time Table (16B)** by cross-indexing a 0-9 roll and the PD Total. After the **Incapacitation Time,** the character regains consciousness and suffers a HT ÷ 20 point penalty to his Combat Actions in addition to any Disabling Injuries.

Example: A character has failed his Knockout Roll and has a PD total = 30. To determine how long he remains incapacitated, roll a ten-sided dice and cross-index the roll with his PD Total (30) on the Incapacitation Time Table (16B). If a 2 is rolled, he regains consciousness in 1 phase. After regaining consciousness, he suffers a HT ÷ 20 = 41 ÷ 20 = 2 point penalty to his Combat Actions.

9

CONSTRUCTION AND REPAIR

How does a can opener work? What are the principles behind radio, internal combustion engines, and lasers? Advanced civilization uses scientific and engineering principles developed over hundreds of years to maintain and expand the technology it uses. New discoveries build on old ones, increasing the complexity and fragility of technology until no one person could hope to understand it all, and a shortage of a few critical items brings it all to a grinding halt.

While these rules do not require any technical expertise on the part of the player, anyone who uses them will soon appreciate the complexity of an advanced technology. The frustration of not having needed parts, of having to make every screw and bolt, of not having the basic raw materials to complete a project will give the player a taste of coping with technology in a post-holocaust world.

Using these rules is very simple. The principle part is **Table 7E,** a list of many different projects and the raw materials, standard parts, tools, and skills needed to build them. The Base Odds of success and times required to complete each project are also given. Enough projects have been listed so that the Gamemaster can fit anything the players want to build into this framework.

9.1

SKILLS

Naturally without the proper skills, making any kind of machine or structure is impossible. Many different types of skills are needed to cover all areas of mankind's technology. Here we have divided them into two categories: **Engineering** and **Skilled Trades.** A list of these skills follows.

Engineering and Applied Science:			**Symbol**
Engineering	1	Civil, Mechanical, and Aerospace	(E1)
Engineering	2	Electrical, and Micro-Electronic	(E2)
Engineering	3	Material and Chemical	(E3)

Skilled Trades:		
Chemical	Chemical processes	CH
Cloth Working	Textile processes & construction	CW
Construction	Earthworks, wood frame, concrete	CO
Electrical	Power wiring for buildings	EL
Glass Blowing	Working bulk glass or ceramic to form	GB
Mechanical Tech	Machining and assembly	MT
Metalworking	Metal forming, welding, treating	MW
Micro-Electronics	Fabricating & assembly of Micro-Elect	MI
Optical	Grinding & polishing optical lenses	OP
Plumbing	Water & sewer piping	PL
Wood Working	Planing and shaping rough wood	WW

The reason these skills have been divided into two categories is merely one of function: the Skilled Trades are those actually used in building the project while the Engineering skills are used to design the project.

While any individual project, such as building a pistol, may only require one or two Skilled Trades (here MT and MW), virtually all require some Engineering skill to ensure proper design and function.

The way these skills are used in construction is explained in Section 9.6. Learning these Professional Skills is explained in Section 2.3.

9.2

RAW MATERIALS

The first requirement for any construction is to have the basic raw materials. The raw materials needed for a project are listed in the **Project Description Table (7E).** If these materials are not immediately available, they must be found or made. Wood, concrete, and various metals are the main materials in any type of construction, and sources for these are listed in **Table 7A.**

Oil has been placed in the list of raw materials because it is a basic resource used throughout technology. Any device with moving parts requires some form of lubrication for smooth operation. Especially combustion engines and transmissions whose oil must be replaced every 1000 hours of operation.

9.3

STANDARD PARTS

Another group of items almost as important as raw materials are Standard Parts. Such things as nails, screws, bolts, and bearings are used in great quantity by technological societies and are typically mass produced by special machines. These machines are fairly rare and hence probably not available to the characters. If these machines are not available, these parts may have to be made using normal machines such as lathes. This is very time consuming and will prove to be the bottleneck in any major project.

Table 7C contains most of the Standard Parts used in these rules. The required materials and machining times (by hand and by special machine) are listed. Any parts not listed on this table can be added by the Gamemaster using his own judgement.

Most Standard Parts, and all Tools, are classified by size. You will find the letters XS, S, M, L, XL, meaning: extra small, small, medium, large, and extra large in front of most standard parts. This is a relative rating to give an idea of physical dimension.

9.4

SCAVENGING

An alternative to making raw materials and standard parts is scavenging. Any existing device or machine can be broken down into its component parts and those parts reused in a new device.

Standard Parts recovered in this manner may be used directly with no penalties or losses except for nails which suffer a 50% loss. Refer to the **Detailed Project Table (7E)** to determine the number of parts each device contains. The **Time** and **Minimum Skill Level** required to scavenge a device is also given on **Table 7E.**

If the scavenger has the minimum necessary skill level to scavenge a device, the device can be disassembled with no damage or loss of standard parts. If the character does not have the skill required there is a chance of damaging the device and parts during disassembly. The Success Roll for disassembly with no damage is 13 minus 2 per level of skill below the minimum required. The Success Roll for disassembly with only Minor damage is 13 minus 1 per level below the minimum. The scavenger makes one Success Roll. If less than or equal to the No Damage Success Roll is rolled on three six-sided dice he has disassembled the device without damage. If greater than the No Damage Success Roll but less than or equal to the Minor Damage Success Roll is rolled, he has disassembled the device with Minor damage to its components. If greater than the Minor Damage Success Roll is rolled, the disassembly did Major damage to the components.

Example:

A 2nd level Scavenger tries to disassemble a meter whose minimum scavenging skill level is 4. His Success Roll against No Damage would be 13 − 4 = 9 and against Minor Damage 13 − 2 = 11.

Reprocessing Raw Materials

There is always some loss when scavenging raw materials, unless they are used in an identical device. This loss occurs because the material has been cut to a particular shape and will not be useful as found. It will have to be reprocessed. The amount of loss for each type of raw material is listed in **Table 7D.** Note that the reprocessing time is in addition to the scavenging time. As an example, 100 lb of scavenged metal can be turned into 90 lb of useful stock.

Scavenging Skill

The Skill of Scavenging involves a general knowledge of how things work and how they are assembled. A Scavenger knows what parts and materials machines are made of, how to take them apart with minimum damage, and how to process the scrap into useful material. As such, he is a jack of all trades since he must have some knowledge of each of the Skilled Trades to be effective.

Scavenging is best done by a Scavenger, but those who know Skilled Trades can effectively disassemble projects involving their discipline. Anyone trained in a Skilled Trade is an equal level Scavenger when the device involves his trade. If a project involves several trades, someone from each trade may be used to scavenge it.

9.5

TOOLS OF THE TRADE

Without the proper tools, making any device would be difficult, if not impossible. They are the last necessary element in the construction rules, for the most skilled craftsman cannot shape metal with his bare hands, or build a micro-circuit without his specialized tools.

Each of the Skilled Trades has certain tools it commonly uses. These tools vary in size, complexity, and abilities and are listed on **Table 7B.** Each trade's tools have been divided into four classes to represent level of complexity. These classes are used in **Table 7E** to specify the tools required for each project.

Level I

Level I tools are hand tools such as saws, screwdrivers, and pliers. Also included are expendable items such as sandpaper, solder, and drill bits. A shop usually has a good supply of these items, but eventually all such supplies will run out.

Level II

Level II tools contain the basic power tools of the trade. Here you find lathes and mills under Mechanical Technology (MT), backhoes and cement mixers under Construction (CO), and so on.

Level III

Level III tools are the next step up in complexity. For MT this means more precise, higher tech metal shaping machines. For CO it means bigger and more varied machines that can dig more, move more, and build more. For Metal Working (MW) it means accurate casting and molding equipment that allows complex shapes to be fabricated.

Level IV

Level IV tools are the ultimate high-tech machines of the trades. Here you will find the largest earth moving machines, metal working tools capable of dealing with super-alloys, and automated microchip factories.

"It's in the shop being readied for the next failure."

Niki

Each group (Level and Type) of tools is considered to be a set, and they are found as sets in industry. A small machine shop might have one or two sets of MT II machines and several sets of MT I tools. A big construction outfit might have two or three sets of CO III equipment, ten sets of CO II equipment, and thirty sets of CO I tools. The same applies to the other trades. The larger and more sophisticated the company, the more tools they will have, and the higher the class of those tools.

Rather than list each specific tool or machine of a given Type and Level, **Table 7B** just gives the numbers of tools, differentiated by a relative size rating. For example, WW II tools consist of 3 S Tools, 3 M Tools, meaning three small tools and three medium tools. In addition to the standard size ratings (XS, S, M, L, XL), a "C" entry is used for tools which are extremely complex for their level. Many of these tools are listed on **Table 7E** as construction projects.

Under each set of tools you will find two numbers. The top number (followed by "man") is the maximum number of people that can use that set of tools. The bottom number (followed by "kw") is the power requirement for that set of tools in kilowatts. Normally the "kw" rating won't matter, characters will either have power, or they won't.

The players will not start the game with all the technology of a star class planet. They will have to go out and find what they need. They will have to raid industrial complexes for raw materials and tools, and on a devastated planet such as Rhand, much of what they find will be damaged or destroyed.

9.6

DETAIL PROJECT

Now we come to the heart of the construction rules; the section on examples. **Tables 7E** and **7F** contain all the information needed to build many different projects. **Table 7E** is a detailed list of projects that gives the raw materials and standard parts needed, the tools and skills required, the success Base Odds, and construction times. Also included are the tools, skills, success Base Odds, and times needed for repair, and the time and minimum skill level required for scavenging the device.

Table 7F contains many additional projects. These projects specify raw materials, skills, times, etc. by referring to projects in **Table 7E.** In this manner the greatest number of projects can be presented. **Table 7F** also provides guidelines so that the Gamemaster may fit his own projects into this framework. This is more fully described in Section 9.7.

A description of the information and use of **Table 7E** follows.

Description

A description of the project and its capabilities.

Raw Materials

Raw materials without which the project cannot be built. This material must be in the proper shape for use; rods, plates, etc for metals and two-by-fours etc for wood.

The only places correctly shaped material will be found are appropriate warehouses and industrial plants. If the raw material does not come from these sources, it has been scavenged and must be reprocessed (Section 9.4).

Standard Parts

Commonly used mass produced items such as screws, bearings, bolts, and resistors. They are found in warehouses or by scavenging. If the parts cannot be found they must be made manually (see Table 7C). This column may contain other projects as sub-assemblies. These items are followed by their project number in parenthesis.

Grind. Rattle. Clunk. "Give me my gun. I'll put it out of its misery."

Sandy Jorden
Senior Technician

Tools/Base Odds/Time

Here "triplets" for each skill required to build the project are given. A triplet gives the **Tool Type** and **Level, Base Odds,** and **Time** (in man hours) to do the job. The first entry gives the Type and Level of tools required to build the project (the Skill required is the same as the Tool Type). The Level is the minimum required to do the job. If a higher Level of Tools are available, add 1 to the Base Odds. Note that no tool entry is given for Engineering triplets, the first entry is a Skill only.

The **Success Roll** for each skill is found in the same manner as for **Action/Reaction Table (6)** entries; add the Base Odds to the character's skill level in the specified skill. Now roll less than or equal to the Success Roll on three six-sided dice to successfully complete that portion of the task.

Each skill listed must be successfully completed, and each period of time spent to finish the project. More than one character can work on each task to speed completion of the project. Since the Time is given in man hours; two working will get the job done in half the time, three in one third the time, and so on. When more than one character works on a skill, each character must successfully make his Success Roll, and there must be enough tools available for everyone involved.

If the same project is to be built over and over again, no engineering needs to be done after the successful completion of the first item. This is because part of the Engineering task is to make detail plans which can be used on all subsequent items.

Any Engineering time required must be spent before actual construction of the project begins, but the Engineering Success Roll is not made until after construction has been successfully completed. A project must be designed before it can be built, but it cannot be tested until after it is built.

If any Skilled Trade roll is failed, that part of the project is ruined and must be redone. This means using an extra 20% more raw materials and 10% more standard parts and again spending the required amount of time. If the second Success Roll is also failed, the entire project is a failure and only good for salvage.

"This device has survived two weeks in Axly's hands. I think that qualifies it for anything."

Sandy Jorden
Senior Technician

If the Engineering Success Roll is failed at the end of construction, the project will not work as designed. Roll a 00-99 number to determine what happens. A 00-50 roll means the device has that much function (0 to 50%). This might mean a gun jams often or has only the rolled percent of its design penetration. On a 51-90 roll, the device has no function at all, and on a 91-99 it fails catastrophically (i.e. a gun explodes or an engine destroys itself). For a building a 00-90 means it will stand, but may fall over in a mild earthquake, while a 91-99 means it collapses on completion.

Repair: Tools/Base Odds/Time

The **Type** and **Level** of tools, **Base Odds** for success, and **Time** in man hours to repair the device are given. The Skills required match those of the tools listed. All tools, skills, and times listed are required for repair. If a repair level of damage is not listed, the device or project cannot be repaired in that damaged state.

Very often characters may not want to build something new, but repair what devices they find or already have. Damage to hardware is classified as either Minor, Major, or Replace. Minor means that little damage was done to actual mechanisms and crude field repairs are probably enough to restore operation. Major means that circuits, mechanisms, and/or structure have been damaged and extensive work by skilled craftsmen is required. Replace usually means the device is only good for salvage.

As damage gets progressively worse, more and more of the device's parts will have to be made new. Some amount of raw materials and standard parts must be used to make repairs. Rather than list parts and materials separately for each project, the amounts have been standardized as follows:

Minor	no extra materials or parts
Major	20% of original raw materials 10% of original standard parts
Replace	60% or original raw materials 50% of original standard parts

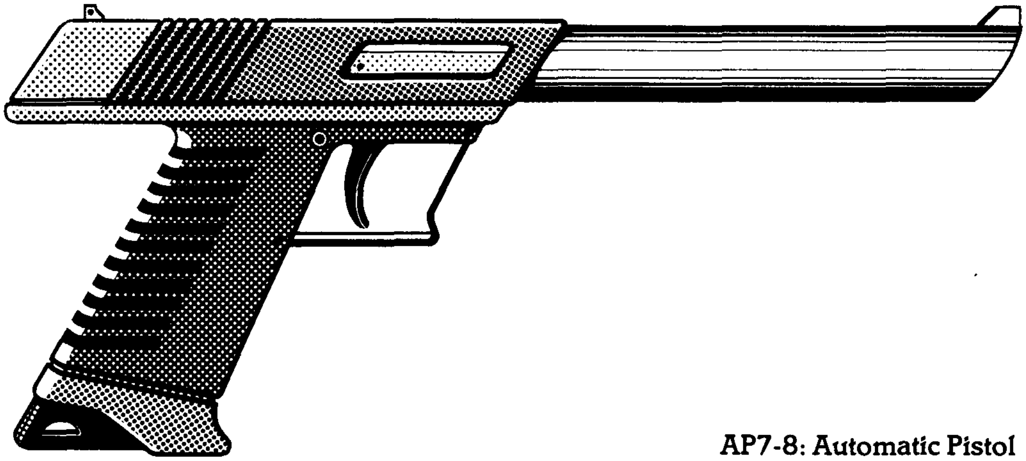
> **"Don't ask me to fix his helmet. It's his head that needs fixing."**
>
> Sandy Jorden
> Senior Technician

In some cases other projects are listed under standard parts as sub-assemblies. For these items, roll the appropriate percent chance (10% for Major and 50% for Replace) for each to determine if it has been damaged. If damaged, it suffers the same level of damage and loss as the parent project and must also be repaired.

If a device suffers more than one damage result, the effects add.

Scavenging

This column lists the **Minimum Skill Level** and **time** required to successfully scavenge the device. Scavenging a device and reprocessing of raw materials is detailed in Section 9.4.



AP7-8: Automatic Pistol

Now that all the rules have been explained here is an example to help you "put it all together".

Example:

Ralph and Tex are two characters holed up in an abandoned factory. They have access to MT II, MW III, and CH I tools. Ralph is 3rd skill level in E1 and MT and 1st level in E2, CO, and MI. Tex is 4th skill level in MW and 3rd level in CO and WW. One day they find an automatic pistol which has suffered Major damage and attempt to repair it. Using the Repair rules they need 20% of the original raw materials and 10% of the original standard parts. For an automatic pistol (Project XX), this means they need .3 lb steel, .1 lb plastic or wood, 1.2 S screws (one plus 20% chance of a second), .3 XS springs (30% chance of needing one), and .2 S springs (20% chance of needing one). After rolling these chances, only one S screw and no springs are needed. The two characters find all the needed parts and materials, but the steel they have is a piece of scrap so Tex spends an hour recasting it into an appropriate shape.

Ralph will do the machining (MT) and Tex will do the metal working (MW). To succeed, Ralph must roll less than or equal to an 11 (8 + 3), and Tex must roll less than or equal to a 14 (10 + 4). Ralph must spend 32 hours, and Tex must spend 4 hours. At the end of their respective times, Ralph rolls a 9 and Tex rolls an 8. Both succeed and the pistol is in good working order. If either of them had failed two rolls, the pistol would be good only for scrap.

9.7

ADDITIONAL PROJECTS

Table 7F has two purposes in the Construction rules. First it details many additional projects, and second, it shows by example how to fit other projects into this system.

Table 7F is set up the same way as **Table 7E.** Projects are described in columns which give the raw materials, standard parts, tools, skills, repair, and scavenging information. Instead of spelling out all the details in each column, however, the entries in **Table 7F** refer back to **Table 7E.** Instead of listing for example, Standard Parts, the entry might read "P17", which means use the standard parts from Project 17 of **Table 7E.** Each column refers to some project in Table 7E in this manner.

There are several ways these entries may be modified on **Table 7F.** These ways are listed and explained as follows.

Modified Entry	
P22 × 2	Twice the value of Project 22. Multipliers are used for materials, parts, or time.
P15 +1	Add one to the Tool level, Base Odds, or Minimum Skill Level for Scavenging.
P18 + P20	Add values for both projects. Applies to materials, parts, tools, and Skills/Base Odds/Times.

Table 7F shows how projects relate to one another. It shows which projects are like others and how much more or less difficult they are. Understanding **Table 7F** will allow the Gamemaster to accurately specify materials, tools, and skills for any project the players can dream up.

9.8

FACILITIES AND SHOPS

The majority of Rhand's manufacturing facilities and shops were located in the large communities detailed in **Table 13.** Section 5.9 provides rules for determining if any of those facilities survived the Spectral bombardment. These communities were not the only source of manufacturing shops however. There existed a number of small shops and facilities remotely located throughout Rhand. Many of these facilities survived the bombardment and if they still have power link could prove very useful.

The location of these remote facilities was not common knowledge and their coordinates were not registered on common ORCA maps. As such they will have to be sought out by recon teams and research. The **Field Encounter Table (11)** provides the Gamemaster with a method of generating these facilities. Characters in the field exploring have a chance of stumbling upon them in the course of play. Please remember, these facilities were not capable of high-tech manufacturing and contained no high-tech equipment. High-tech facilities were carefully monitored and found in secured areas such as the research centers of **Table 13** or Subcon communities.

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GLOSSARY

Action Counts (AC)	Cost in time to perform any act. (Sec 7.2)
Accuracy Level Modifiers (ALM)	Weapon accuracy modifiers. The sum of these modifiers is the shot's EAL. (Sec 7.3)
Arc of Fire	Arc over which automatic fire is spread. (Sec 7.8)
Automatic Weapon Hit Chance	Chance of hitting each target in the Arc of Fire. (Sec 7.8)
Auto ELE	Target size modifier for burst elevation EAL. (Sec 7.8)
Base Concussion (BC)	Physical Damage from an explosive's blast. (Sec 7.9)
Base Shrapnel Hit Chance (BSHC)	Chance of hitting each target in the blast radius with shrapnel. (Sec 7.9)
Blast Modifiers	Modifiers to the BC for situation and stance. (Sec 7.9)
Combat Actions (CA)	Number of AC a character may perform each phase. (Sec 1.5 Step 5, 7.2)
Critical Time Period (CTP)	Critical time following injury during which medical aid can be administered to improve survival chance. (Sec 8.1)
Damage Class (DC)	Bullet damage capability. (Sec 7.5)
Damage Total (DT)	Measure of severity of injuries. DT = PD Total × 10 ÷ Health characteristic (Sec 8.1)
Disabling Injury	Over 5 PD to an arm or 10 PD to a leg from a single wound. Incapacitates the limb until the injury heals. (Sec 7.6)
Effective Accuracy Level (EAL)	Overall Shot accuracy. It is the sum of all applicable ALM. (Sec 7.3)
Effective Impact Damage (EID)	Bullet penetration capability after armor. EID = RID − armor PF (Sec 7.5)
Experience (Exp)	Learning Points gained by defeating an opponent in a crisis situation. (Sec 2.6)
Facing	Orientation of the figure or marker representing the character. (Sec 7.1)
Field of Fire	The 60 degree cone centered on a character's Facing into which he can fire his weapon. (Sec 7.1)
Field of View	Area a character can immediately see, the front 180 degrees centered on his Facing. (Sec 7.1)
Healing Time (HT)	Time, in days, for injuries to heal. (Sec 8.1)
Hexes Per Phase (HPP)	Movement speed in 2 yard hexes per phase. A phase is a two second long game turn.
Incapacitation Time	Time a person is dazed or incapacitated following failure of his Knockout Roll. (Sec 7.6, 8.3)
Intelligence Skill Factor	Intelligence characteristic + Skill Accuracy Level. (Sec 1.5 Step 4)
Knockout Value (KV)	Character's ability to ignore the pain of wounds. KV = .5 × Will × Gun Combat Skill Level (Sec 7.6)
Learning Point Total (LPT)	Total number of Learning Points which must be attained to reach a given Skill Level. (Sec 2.3)
Learning Roll	Chance of a character gaining a Learning Point following training. (Sec 2.3)
Maximum Speed (MS)	Character's maximum running speed in HPP. (Sec 1.5 Step 2, 7.2)
Minimum Arc (MA)	Minimum number of hexes over which a burst of fully automatic fire must be spread. (Sec 7.8)
Physical Damage (PD)	Measure of physical damage. (Sec 7.5)
Protection Factor (PF)	Protection afforded by armor. (Sec 7.5)
Rate Of Fire (ROF)	AC required to chamber a round from the weapon's magazine. An * indicates a self-loading action. A number following an * indicates fully automatic fire and gives the rounds fired per half second burst. (Sec 7.8)
Recovery Roll (RR)	Determines survival chance following physical injury. (Sec 8.1)
Relative Impact Damage (RID)	Bullet penetrating power. (Weapon Data Tables)
Risk Level	A mission's risk or danger level. A mission of Risk Level 1 the safest, Risk Level 10 the most dangerous. (Sec 5.3)
Skill Accuracy Level	Measure of the character's skill with weapons and knowledge of small arms tactics. (Sec 1.5 Step 3)
Spectral Bombardment (SB)	Measure of a community's or installation's damage sustained due to the Spectral bombardment. (Sec 5.8, 5.9)
Snap Shot	A shot taken after 1AC of aim time.
Sustained Automatic Burst (SAB)	Weapon accuracy during sustained automatic fire. (Sec 7.8)

Ringer Background

1A

Roll	Initial Training	General Skill Type A	B	C	D	E	F	G	Qualified Skills Lase Weapons	Explosv Weapons	Heavy Weapons	Power Armor	Grav Vehicles
000-000	Landcaste Infantry	*2	*1	*1	-	*1	-	-	-	20	10	-	-
001-004	Landcaste Mechanized Infantry	*3	*1	*1	-	*1	*1	-	-	80	40	-	-
005-005	Senior Guild Starfleet Infantry	*4	*3	*3	*1	*1	*1	*1	YES	60	80	-	14
006-006	Senior Guild Starmarine	*3	*3	*3	-	*1	*1	*1	YES	80	40	-	4
007-008	Minor Landcaste Infantry	*2	*1	*1	-	*1	-	*1	-	10	5	-	-
009-016	Minor Landcaste Mechanized Infantry	*3	*1	*1	-	*1	*1	*1	-	60	10	-	-
017-017	Subcon Starforce	*4	*3	*3	-	*1	*1	*1	YES	YES	60	-	2
018-119	Surrogate Infantry	*3	*2	*2	-	*1	*1	*1	YES	10	10	-	1
120-187	Surrogate Mechanized Infantry	*3	*2	*3	*1	*1	*1	*1	YES	20	20	-	3
188-193	Surrogate Guard Unit	*4	*3	*3	*3	*2	*1	*1	YES	60	60	-	6
194-194	Imperial Starfleet Infantry	*4	*3	*3	*1	*2	*1	*1	YES	YES	80	-	13
195-200	Imperial Starmarine	*4	*3	*3	*1	*2	*1	*1	YES	YES	60	-	7
201-212	7 World Starfleet Infantry before 2180	*5	*3	*4	*3	*3	*1	*3	YES	YES	YES	YES	20
213-500	7 World Starmarine before 2180	*5	*3	*4	*2	*1	*1	*3	YES	YES	80	20	7
501-506	7 World Starfleet Infantry date 2181 to 2194	*3	*2	*2	-	*1	*1	*1	YES	YES	30	YES	13
507-799	7 World Starmarine date 2181 to 2194	*2	*2	*2	-	*1	*1	*1	YES	YES	10	10	4
800-999	7 World Alpha Home Guard date 2186 to 2194	*2	*1	*1	-	-	*1	*1	YES	YES	5	5	3

Ringer Background

1B

Column 1	2	3	Active Duty Assignment	General Skill Type A	B	C	D	E	F	G	Qualified Skills Lase Weapons	Explosv Weapons	Heavy Weapons	Power Armor	Grav Vehicles
00-09			Garrison Duty	-	-	10	-	20	05	10	10	10	10	-	-
10-17			Recruit Training & Instruction	30	20	20	10	50	10	10	10	10	10	-	-
18-24			7 World - Starguild Border Raid	20	20	20	10	50	10	10	20	30	5	-	-
25-31			Counter Espionage	30	30	70	70	60	10	05	20	30	5	-	-
32-83	00-01	00-09	* Exceptional Merit	*1	20	-	-	-	-	-	-	-	-	-	-
84-86	02-11		7 World-Starguild Border Conflict	40	-	10	10	20	-	-	10	10	-	-	-
87-89	12-15		Tactical Security Team	30	30	30	40	50	10	10	30	30	-	-	-
90-93	16-22		Wound Recovery and Rehabilitation	-	-	-	-	10	-	-	-	-	-	-	-
94-97	23-35		Dragoncrest Border Wars	60	20	30	10	30	-	10	YES	20	5	-	1
98-99	36-47		First 7 World - Starguild War	50	10	30	10	30	-	20	YES	YES	30	-	7
	48-55		* Joins 7 Sword - Command Element	*1	*1	*3	*3	*3	*3	*3	YES	YES	30	YES	-
	56-99		* Joins 7 Sword - Combat Team	*1	*1	*3	*1	*1	*1	*3	YES	YES	30	YES	20
		10-19	7 World - Starguild Skirmish	60	20	60	30	30	10	40	YES	YES	YES	20	4
		20-20	7 Sword Command Team (Kami)	*1	*3	*4	*1	*4	*2	*2	YES	YES	YES	YES	YES
		21-29	Dragoncrest War, Operation Lance	70	60	60	10	50	50	40	YES	YES	60	23	4
		30-59	Dragoncrest War, Alpha Campaign	70	60	60	05	50	50	40	YES	YES	60	23	3
		60-75	* Dragoncrest War, Alpha Campaign	*2	60	60	05	50	50	40	YES	YES	60	16	3
		76-79	* Starguild War, Alpha Rear Guard	*1	10	30	30	30	10	20	YES	YES	30	-	-
		80-99	* Starguild War, Fall of Hryken	*1	10	60	30	30	10	20	YES	YES	30	-	-

Alpha Team Background

2A

		General Skill Number (see character sheet)																	Qualified Skills				
Roll	Alpha Team	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Lase Weapons	Explosv Weapons	Heavy Weapons	Power Armor	Grav Vehicle
00-19	Communications Repair	-	*1	*1	1	2	10	-	1	-	-	-	-	*2	*2	*2	*1	1	-	-	-	-	-
20-29	Search and Rescue	-	*4	*3	1	60	*6	*8	*4	*5	10	-	-	*3	*3	*3	*1	*4	-	-	-	-	-
30-42	Fire Fighting	-	*4	*3	1	5	*5	*1	*1	*6	*6	-	-	*3	*3	*3	*1	*3	-	-	-	-	-
43-45	Hazardous Chemical	-	*3	*2	1	2	*1	-	1	*5	*2	-	-	*3	*3	*3	*1	*3	-	-	-	-	-
46-58	Paramedic	-	*2	*1	1	*1	*1	*1	*2	*1	-	-	-	*4	*5	*5	*3	*6	-	-	-	-	-
59-61	Power Receiver Repair	-	*2	*1	1	2	*1	-	1	-	-	-	-	*2	*2	*2	*1	1	-	-	-	-	-
62-62	Power Rely St. Repair	-	*7	*3	1	2	*6	-	1	-	-	-	-	*2	*2	*2	*1	1	-	-	-	-	-
63-64	Teleporter Repair	-	*1	*1	1	2	5	-	1	-	-	-	-	*2	*2	*2	*1	1	-	-	-	-	-
65-87	Bondsmen Law Enf.	-	*2	*1	*4	*4	*1	*1	*1	*3	-	*1	*1	*3	*4	*4	*3	*1	-	-	-	-	-
88-89	Launch Facility Repair	*2	*6	*3	1	2	*6	-	1	*1	30	*1	*1	*2	*2	*2	*1	1	-	-	-	-	-
90-91	Launch Emergency Team	*3	*6	*4	1	*1	*6	-	*1	*6	*3	*1	*1	*2	*2	*4	*1	*3	-	-	-	-	-
92-93	Trident Law Enf.	*7	*4	*2	*4	*5	*2	*7	*3	*7	*1	*8	*7	*5	*4	*6	*3	*1	YES	YES	-	-	-
94-94	Imperial Law Enf.	*5	*2	*2	*2	*4	*1	*4	*3	*5	-	*6	*6	*5	*5	*6	*2	*1	YES	YES	10	-	-
95-96	Landcaste Law Enf.	*3	*2	*1	*2	*2	*1	*2	*1	*4	-	*1	*1	*4	*4	*4	*2	*1	10	5	10	-	-
97-97	Trident Starfleet	*6	*5	*5	*2	*5	*4	*3	*5	*5	*3	*2	*1	*4	*4	*4	*1	*3	YES	YES	YES	YES	1
98-98	Trident Starmarine	*5	*3	*3	*3	*3	*3	*5	*5	*5	*1	*1	*3	*1	*1	*3	*1	*1	YES	YES	60	14	1
99-99	Trident Heavy Assault	*7	*5	*5	*4	*5	*5	*7	*5	*7	*4	*4	*6	*1	*3	*7	*2	*3	YES	YES	YES	YES	2

Non-Player Character Background

2B

	General Skill Number (see character sheet)																	Qualified Skills				
Background Affiliation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Lase Weapons	Explosv Weapons	Heavy Weapons	Power Armor	Grav Vehicle
Civilian	*1	*1	*1	1	2	10	-	*1	10	-	-	-	*1	*1	*1	*1	1	5	1	-	-	-
Civilian Bodyguard	*8	*3	*3	*3	*5	*1	*3	*3	*6	20	10	15	*3	*4	*5	*3	1	YES	20	20	-	1
Bondsmen Law Enf.	*1	*2	*1	*3	*3	10	*1	*1	*2	-	*1	*1	*3	*3	*3	*2	*1	10	10	-	-	-
Landcaste Law Enf.	*3	*2	*1	*2	*2	*1	*2	*1	*3	-	*1	*1	*3	*3	*3	*2	*1	30	10	-	-	-
Trident Law Enf.	*6	*3	*2	*3	*3	*2	*5	*3	*6	*1	*7	*6	*4	*4	*5	*2	*1	YES	20	20	-	-
Imperial Law Enf.	*4	*2	*1	*2	*2	*1	*3	*3	*4	-	*5	*5	*4	*4	*5	*2	*1	60	20	5	-	-
Landcaste Military	*3	*2	*2	*2	*2	*2	*3	*2	*4	10	5	10	*1	*1	*1	*1	*1	30	30	10	4	-
Surrogate Starforce	*5	*4	*2	*3	*4	*3	*5	*3	*5	*1	*2	*4	*1	*2	*3	*1	*1	YES	YES	60	7	3
Subcon Starforce	*4	*3	*3	*3	*3	*3	*3	*3	*3	10	20	10	*1	*1	*1	*1	*1	80	10	10	7	3
Scan Starmarine	*6	*4	*3	*3	*4	*3	*5	*4	*5	15	20	30	*1	*1	*3	*1	*1	YES	YES	40	12	6
Trident Starmarine	*7	*4	*3	*3	*4	*3	*5	*4	*6	10	10	10	*1	*3	*3	*1	*1	YES	YES	40	14	7
Imperial Starmarine	*6	*4	*3	*3	*4	*4	*5	*4	*5	25	30	30	*2	*2	*3	*1	*1	YES	YES	40	14	7
Imperial Guard	*8	*6	*5	*6	*6	*6	*8	*8	*8	*5	*5	*7	*2	*3	*5	*3	*3	YES	YES	YES	YES	20

Base Speed

3A

STR	Encumbrance 10	15	20	25	30	35	40	45	50	55	60	70	80	90	100	125	150	175	200
21	4.5	4.5	4	4	4	3.5	3.5	3.5	3.5	3.5	3	3	3	3	3	2.5	2.5	2.5	2
20	4.5	4	4	3.5	3.5	3.5	3.5	3.5	3	3	3	3	3	2.5	2.5	2.5	2.5	2	2
19	4	4	3.5	3.5	3	3	3	3	3	2.5	2.5	2.5	2.5	2.5	2	2	2	2	1.5
18	4	3.5	3.5	3	3	3	2.5	2.5	2.5	2.5	2.5	2	2	2	2	1.5	1.5	1.5	1.5
17	3.5	3	3	3	2.5	2.5	2.5	2.5	2	2	2	2	2	1.5	1.5	1.5	1.5	1	1
16	3.5	3	2.5	2.5	2.5	2.5	2	2	2	2	2	1.5	1.5	1.5	1.5	1	1	1	1
15	3	3	2.5	2.5	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1	
14	3	2.5	2.5	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1		
13	3	2.5	2.5	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1			
12	3	2.5	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
11	3	2.5	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
10	3	2.5	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
9	3	2.5	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
8	3	2.5	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
7	2.5	2.5	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1				
6	2.5	2.5	2	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1	1				
5	2.5	2.5	2	2	1.5	1.5	1.5	1.5	1.5	1	1	1	1	1					
4	2.5	2	2	1.5	1.5	1.5	1.5	1	1	1	1	1							
3	2.5	2	1.5	1.5	1.5	1	1	1	1	1	1								
2	2	1.5	1.5	1.5	1	1	1	1											
1	1.5	1.5	1																

Maximum Speed

3B

AGI	Base Speed 1	1.5	2	2.5	3	3.5	4	4.5
21	2	4	5	7	9	10	12	13
20	2	4	5	7	8	10	11	13
19	2	4	5	7	8	10	11	12
18	2	4	5	6	8	9	11	12
17	2	3	5	6	8	9	10	12
16	2	3	5	6	8	9	10	11
15	2	3	5	6	7	9	10	11
14	2	3	4	6	7	8	9	11
13	2	3	4	6	7	8	9	10
12	2	3	4	5	7	8	9	10
11	2	3	4	5	6	7	8	9
10	2	3	4	5	6	7	8	9
9	2	3	4	5	6	7	8	9
8	2	3	4	4	5	6	7	8
7	2	3	3	4	5	6	7	8
6	2	2	3	4	5	5	6	7
5	1	2	3	4	4	5	6	6
4	1	2	3	3	4	4	5	6
3	1	2	2	3	3	4	4	5
2	1	1	2	2	3	3	4	4
1	1	1	1	2	2	2	3	3

3C

Gun Skill Combat Level	Skill Acc Level
0	0
1	5
2	7
3	9
4	10
5	11
6	12
7	13
8	14
9	15
10	16
11	17
12	18
13	19
14	20
15	21
16	22
17	23
18	24
19	25
20	26

Combat Actions

3D

ISF = INT + Skill Acc Level

MS	Intelligence Skill Factor (ISF) 6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	29	31	33	35	37	39	41
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4
3	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	6	6
4	1	2	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	6	6	6	7	7	7	7	8
5	2	2	2	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6	6	7	7	7	7	8	8	8	9	9	10
6	2	3	3	3	4	4	4	5	5	5	6	6	6	6	7	7	7	7	8	8	8	8	9	9	10	10	11	11	11
7	2	3	3	4	4	5	5	5	6	6	7	7	7	7	8	8	8	9	9	9	10	10	10	11	11	12	12	13	13
8	3	3	4	4	5	5	6	6	7	7	7	8	8	9	9	9	10	10	10	11	11	11	12	12	13	14	14	15	15
9	3	4	4	5	6	6	7	7	7	8	8	9	9	10	10	10	11	11	12	12	12	13	13	14	15	15	16	17	17
10	3	4	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	12	13	13	14	14	15	16	16	17	18	18	19
11	4	5	5	6	7	7	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	15	16	17	18	19	19	20	21

Learning Roll

3E

Total	LR	Total	LR
18-23	1	75-77	20
24-29	2	78-83	22
30-35	3	84-89	28
36-41	4	90-95	34
42-47	5	96-101	40
48-53	6	102-107	46
54-59	8	108-113	52
60-65	10	114-119	60
66-69	12	120-125	70
70-71	14	126-131	80
72-74	16	132-137	90

Age 4A

Roll	Age	CM
Children		
00-06	(4)	7
07-24	5-6	6
25-57	7-8	5
58-99	9-10	4
Juvenile		
00-12	11-12	2
13-37	13-14	1
38-66	15-16	1
67-99	17-18	0
Adult		
00-11	(6)+18	0
12-30	(6)+24	0
31-50	(6)+30	0
51-69	(6)+36	0
70-84	(6)+42	0
85-93	(6)+48	1
94-97	(6)+54	2
98-99	over 60	3

Non-Player Character Background 4B

Roll	Background & Caste	Arms Class
	Repairman (Bondsman)	
000-004	Electronics	1
005-008	Mechanical	1
009-014	Ground Vehicles	1
015-019	Power Transmission	1
	Operator (Bondsman)	
020-025	Communications	1
026-031	ORCA	1
032-043	Power Transmission	1
044-049	Freight & Shipping	1
	Businesses (Bondsman)	
050-057	Construction	1
058-102	Food Industry	1
103-110	Heavy Manufacturing	1
111-142	Light Manufacturing	1
143-157	Medical	1
158-354	Recreational	1
355-659	Service	1
660-812	Sales	1
	Landcaste	
813-823	Clerical	1
824-825	Communications	1
826-826	Health & Education	1
827-828	Law Agent-Bondsman	1
829-830	Law Agent-Landcaste	2
831-831	Military-Landcaste	3
832-834	Power Generation	1
835-835	Tourist Regulations	1
836-836	Transportation	1
837-837	Water & Ecology	1
	Surrogate (Starcaste)	
838-845	Civilian	3
846-846	Starforce Military	4
	Subcon (Starcaste)	
847-910	Civilian	1
911-931	Technical, Manufact.	1
932-945	Security	2
946-948	Starforce Military	4
	Scan Tech (Starcaste)	
949-956	Civilian	1
957-957	Medical Aid Personnel	1
958-958	Starforce Military	5
	Trident (Starcaste)	
959-976	Civilian - Business	1
977-979	Technical, Manufact.	1
980-980	Law Enforcement	4
981-981	Starforce Military	5
	Tourist (Starcaste)	
982-986	Tourist - Business	1
987-987	Tourist - Technical	1
988-988	Tourist's Bodyguard	2
989-989	Tourist's Starforce	5
990-997	Tourist's Servant	1
	Imperium (Starcaste)	
998-998	Civilian	1
999-999	Starforce Military	5

Armor Generation Table 4C

Type	Arms Class 1	2	3	4	5
None	000-964				
Lgt Flex	965-984	000-490			
Med Flex	985-990	491-790			
Hvy Flex	991-994	791-890			
CS only	995-997	891-958	000-553	000-496	000-376
CS L1	998-998	959-971	554-660	497-592	377-449
CS L2	999-999	972-982	661-749	593-672	450-510
CS L3	-	983-990	750-812	673-728	511-553
CS L4	-	991-994	813-848	729-760	554-577
CS L5	-	995-999	849-893	761-800	578-607
Heavy CPA	-	-	894-924	801-809	608-657
Med CPA	-	-	925-945	810-838	658-688
Light CPA	-	-	-	839-839	689-690
Skiff CPA	-	-	-	840-840	691-692
SCC CPA	-	-	946-994	841-876	693-733
FCC CPA	-	-	995-997	877-878	734-740
Scout CPA	-	-	998-999	879-880	741-745
Crew CPA	-	-	-	881-999	746-999

Flex = Flexible Armor (Body Only)
CS = Combat Suit
L1 to L5 = Armor Panels Level 1 to 5
CPA = Combat Power Armor
SCC = Slow Cargo Carrier
FCC = Fast Cargo Carrier

Weapon Generation Table 4D

Type	Arms Class 1	2	3	4	5
AP5-8	00-21	00-37			
AP6-8	22-30	38-43			
AP7-8	31-34	-			
FMP8	35-37	-			
FMPX8	38-38	-	00-01		
SMP8	39-48	44-90	02-03		
SAR8	49-52	91-92	04-06		
AR8L	53-53	93-96	07-34		
AR8	54-57	97-98	35-72		
SAW8	58-58	-	73-82		
MG8L	-	-	83-86		
MG8H	-	-	87-88		
X7MP1	59-99	-	-		
SMPGL8	-	99-99	89-95	00-05	00-06
RL8A	-	-	96-96	06-06	07-07
RPG8A	-	-	97-99	07-08	08-08
GR8	-	-	-	09-09	09-10
GMG8L	-	-	-	-	11-14
LMP8	-	-	-	10-11	15-15
LAR7	-	-	-	12-41	-
LAR8	-	-	-	42-96	16-89
LARGL8	-	-	-	97-98	90-95
LMG8L	-	-	-	99-99	96-98
LMG8H	-	-	-	-	99-99

Power Armor Weapon Table 4E

Type	HCPA	SCC FCC	MCPA Sc/Cr	LCPA Skiff
LMP8	-	-	00-04	00-55
LAR8	00-12	00-04	05-71	56-99
LMG8L	13-22	05-09	72-83	
LMG8H	23-28	10-29	84-85	
LARGL8	-	-	86-94	
RPG8A	-	-	95-99	
BP-GMG8L	29-45	30-51		
BP-GMG8H	46-50	52-73		
BP-GL8A	51-80	74-76		
BP-RR8C	81-82	77-83		
BP-RL8A	83-85	84-96		
BP-RPG8A	86-99	97-99		

NPC Equipment Type, Class, & Number 4F

Gun Skill Level	Personal CL 1	Personal CL 2	General CL 1	General CL 2	General CL 3
0-2	3	-	-	-	-
3-5	3	1	-	-	-
6	4	2	1	-	-
7	5	2	2	1	-
8	6	2	3	2	1
9	7	3	4	3	2
10	8	3	5	4	3

Professional Skills

5A

Job Skills

- Accounting
- Agriculture
- Clerical Record Keeping
- Computers
  - Programming
  - Design
- Economics
- Engineering
  - Civil, Mech, Aero (E1)
  - Electrical, Electronic (E2)
  - Material, Chemical (E3)
- Entertainment (specify field)
- History
- Horticulture
- Language
- Law
- Literature
- Marketing
- Medical (specify field)
- Operator
  - Chemical Manufacturing
  - Communications
  - Computers
  - Food Processing
  - Ground Vehicles
  - Mass Transport
  - ORCA
  - Power Transmission
  - Production Machinery
- Performing Arts (specify field)
- Photography
- Politics
- Repair and Service
  - Communications
  - Computers
  - Electrical
  - Grav Vehicles
  - Ground Vehicles
  - Power Generation
  - Power Transmission
- Security
- Sciences (specify field)
- Sports (specify field)
- Skilled Trades

Chemical	CH
Cloth Working	CW
Construction	CO
Electrical	EL
Glass Blowing	GB
Mechanical Technology	MT
Metalworking	MW
Micro-Electronics	MI
Optical	OP
Plumbing	PL
Wood Working	WW

Hobbies, Sports, and Activities

- Acting
- Animal Breeding
- Animation
- Animal Trainer
- Archery
- Astronomy
- Biking
- Boating
- Boxing
- Bridge
- Car Racing
- Card Games
- Carousing
- Ceramics
- Chess
- Choir
- Cinematography
- Collecting
- Connoisseur
- Cooking
- Cross Country Skiing
- Dancing
- Darts
- Falconry
- Fashion Design
- Fencing
- Fishing
- Flying
  - Fixed Wing Prop
  - Fixed Wing Jet
  - Gliders
  - Helicopters
  - Jet Pack
- Gambling
- Gardening
- Glass Blowing
- Golf
- Gymnastics
- Hang Gliding
- Horseback Riding
- Hunting
- Hydroplane Racing
- Ice Climbing
- Ice Skating
- Interior Decorating
- Jewelry Making
- Kayaking
- Knife Making
- Leather Working
- Make-up & Costumes
- Metal Sculpture
- Model Building
- Motorcross
- Music
- Naturalist
- Off-Road Racing
- Painting
- Photography
- Poetry
- Pool
- Racket Sports
- Reading
- River Rafting
- Rock Climbing
- Running
- Sailing
- Scuba
- Sculpture
- Seduction
- Sewing
- Sky Diving
- Snow Skiing
- Spelunking
- Sports Fan
- Surfing
- Swimming
- Taxidermy
- Team Sports
- Video Games
- Water Skiing
- Weight Lifting
- Wrestling
- Writing
- Wood Working

Professional Skill Level Guide

5B

Child		LR/10
Juvenile	(3) +	LR/10
Adult	(6) +	LR/5

The preceding table is a guide for determining the Skill Level of a person's Primary Occupation. LR = Learning Roll.

Training Acceptance Roll

5C

Skill Category	Duty Line	Assignment Crack	Elite
Class 1	25	99	99
Class 2	20	70	99
Class 3	5	40	70
Qualified Skill	1	10	40

Learning Point Total

5D

Skill Level	LPT	Skill Level	LPT	Skill Level	LPT
0	0	7	88	14	542
1	2	8	126	15	674
2	4	9	170	16	834
3	8	10	218	17	1026
4	16	11	274	18	1254
5	32	12	346	19	1522
6	56	13	434	20	1834

Pursuit Table

5E

11	Single Enemy Unit
9	Organized Dispersed Enemy no Comm Equip.
7	Organized Dispersed Enemy with Comm Equip.
+3	*Team is Faster than Enemy
+2	Team has a Guide or Knows the Territory
+2	Night Operations against Non-Spectrals
-1	Team Contains Untrained Noncombatants
-2	*Team is Slower than Enemy
-2	Enemy has a Guide or Knows the Territory
-2	Team on Ground Vehicles
-3	Night Operation against Spectrals
-4	Team with Seriously Wounded

* Not used with Scouting or Infiltration Rules

Scouting Information Table

5F

N	
1	Enemy Numbers Accurate to within 50%
2	Numbers to 20% & Rough Disposition
3	Disposition & Rough Composition
4	Composition & 50% Key Equipment & Traps

Infiltration Table

5G

N	
1	Approach Enemy Camp to 100 hex Range
2	Penetrate Perimeter to 20 hex Range
3	Slip by Perimeter Guards

Key

I = Number rolled minus Success Roll

T = Trap Complexity Level (see Traps/Spotting entry)

1) If the Success Roll is made on the N th attempt, the value is known within plus or minus 10 x N %.

2) Chance per 2 hexes traveled or per phase if moving at or below 1 HPP. If moving at 2 HPP subtract 1 from the Success Roll, if moving at 3 HPP subtract 2 from the Success Roll, etc.

3) Failure results in an injury of N x I x (6) x 5 PD.

4) Roll these chances twice. If both rolls are made, the character knows the truth. If 1 made and 1 failed, the results are uncertain. If both are failed, the character believes what the opponent wants him to.

5) If the roll is failed with:

I =	Result	
2	No damage but attempt unsuccessful	
3	Superficial damage to equipment	see note 3)
4-5	MIN damage to equipment (Sec 7.10, 2.5)	see note 3)
6	MAJ damage to equipment (Sec 7.10, 9.6)	see note 3)
7	REP damage to equipment (Sec 7.10, 9.6)	see note 3)
8	Irreparable Damage	see note 3)

Balance / Footwork (AGI)

	Walk across a:	2)
10	2 inch wide beam	
13	4 inch wide beam	
14	6 inch wide beam	
15	12 inch wide beam	
8	Tightrope	
	Stand or Walk in a:	2)
12	Small boat	
13	Steadily moving ground vehicle (no handhold)	
6	Maneuvering ground vehicle (no handhold)	
	Kneel or Crawl in a:	2)
15	Steadily moving ground vehicle (no handhold)	
9	Maneuvering ground vehicle (no handhold)	
10 - N	Lose a pursuer by performing a dangerous move of Risk = N	3)
	Standing Jump:	
9	Across 5 foot	
6	Across 6 foot	
11	From one moving vehicle to another (see Fall Rec)	3)
	Running Jump:	
8	Across 12 foot	
6	Across 16 foot	
7	Onto a moving vehicle (see Fall Recovery)	3)
	Jump Over (hurdle) a:	
15	2 foot object	
11	3 foot object	

Balance / Footwork (continued) (AGI)

	Move down a Hill of steepness	2)
13	40 degrees	
12	50 degrees	
7	60 degrees	
	Move Over or Across:	2)
13	Field strewn with obstacles	
15	Fallen body	
15	Roof of 40 degree slant	
7	2 inch window ledge	
12	4 inch window ledge	
15	Ladder without using your hands	
15	Trace another's footsteps avoiding mines	2)

Power Armor (AGI, INT)

13	Simple operations (per hour, N = 2)	5)
10	Combat operations (per 10 phases, N = 3)	5)
11	Know a specific function such as power, recharge, etc	
6	Learn a function by trial & error (per minute, N = 3)	5)
Abil	Repair Power Armor SL = Power Armor SL / 4 (up to MIN dam)	

Climbing (STR, AGI)

	Free Climb:	2)
11	A pole or free hanging rope	
13	A small to medium tree with branches	
9	A large tree with no branches	
10	A stone wall	
6	A cliff face	
14	Climb a Wall with aid of a rope	2)
	Cross a Rope Bridge:	2)
13	Single rope bridge hand over hand	
15	Single rope bridge hand and cross-legged	
16	Twin rope bridge	
	Climb a Cliff Face:	2)
9	As the lead climber with rope and climbing gear	
11	As a support climber following leader	
7	With tigerpaws or equivalent	
15	Rapel down a cliff	2)
	Secure a Grappling Hook:	
3	To a roof or cliff	
7	To a tree	
15	Swing across a span on a free rope	
	Hold on while outside a maneuvering vehicle:	2)
8	With both hands	
5	With one hand (see Fall Recovery if fail)	

Con / Acting (vs Perception or Traps/Spotting SL) (INT, CHR, TS)

13 - SL	Smuggle or forge an item past an inspector	
14 - SL	Impersonate another (ID only required no recognition)	
	Playing dead through a:	
12 - SL	Quick glance	
3 - SL	Cursory inspection	
-3 - SL	Close inspection	

Action / Reaction Table

Con / Acting (vs Perception or Traps/Spotting SL) (INT, CHR, TS)

	Disguise and impersonate another fooling:	
13 - SL	Acquaintances	
10 - SL	Friends (each half hour in close contact)	
0 - SL	Close comrades	

Demolitions (N = Explosive's Range Zero BC Value) (INT)

11	Set a demolition charge	3)
17 - T	Set an explosive trap of Trap Level = T	3)
15 - T	Disarm an explosive trap of Trap Level = T	3)

Diplomacy (INT, CHR, LDR, TS)

13	Find a job (per week)	
10	Hire a person (per week)	
9	Sell an item at normal price (per week)	
	Settle an argument between N factions (per week)	
13 - N	Minor dispute	
8 - N	Heated dispute	
4 - N	Dispute which has led to armed conflict	
	Communication with another of unknown language	
14	Simple ideas (per minute)	
6	Involved plans (per hour)	
4	Complex concepts (per day)	

Driving (vs opponent's Driving SL) (INT, AGI)

15 - N	Evasive maneuvers ALM = -N to off. & def. fire (per phase)	5)
14 - N	Dangerous maneuver to lose pursuit, choose N each 10 phases	5)
8 - SL	Ram and disable opponent's vehicle (per 10 phases)	5)
	Drive clear of an obstacle at chase speed	5)
11	By 12 inches	
9	By 6 inches	
5	By 2 inches	
7 - SL	Run over a person on flat clear terrain (vs Bal/Foot SL)	5)
	Impact does 200 X (10) PD to target	
6 - SL	Maintain evading vehicle within front 60 deg for full phase	
10 - SL	For 1/2 phase	
Abil	Repair Vehicle SL = Driving SL / 5	

Espionage (vs target's Espionage SL or Knockout Value) (INT, TS)

1-KV/10	Break a prisoner using nonphysical means (per day)	
22-KV/5	Break a prisoner using torture (1 try)	
18-KV/7	Intimidate another to not speak against you	
	Break a coded message	
12	Simple Code such as Morse Code (per week)	
3	Complex Encoding (per month)	
3 - SL	Find a reclusive person in a town or city (per day)	
5 - SL	Become aware of a conspiracy or treachery (per week)	
	Gain an inside informant of rank (per month)	
9 - SL	Private or simple employee	
7 - SL	Sergeant or manager	
5 - SL	Captain or division manager	
4 - SL	Staff or corporate board member	

Espionage (vs target's Espionage SL) (INT, TS)

	Avoid detection in an enemy town while: (per hour)	
13 - SL	Operating in the town	
16 - SL	Hiding out	
Abil	For operation in the field see Section 2.8	

Fall Recovery (AGI)

	Recover footing when rolling down a slope of:	2)
9	30 degrees	
6	40 degrees	
5	50 degrees	
4	60 degrees	
9	Recover footing when rolling down a flight of stairs	
6	Fall clear of a disabled horse without injury	3)
7	Fall down a flight of stairs without injury	3)
	Fall N feet without injury	3)
15 - N	Onto a hard surface	
22-N/2	Onto a soft surface	
22-N/5	Into deep water	
8	Turn a Fall over 15 feet into a Jump	
	Jump N feet without injury	3)
27 - N	Onto a hard surface	
22-N/4	Onto a soft surface	
22-N/10	Into deep water	
22 - N	Roll to a stop from a speed of N HPP without injury	3)

Grav Vehicle (N = 1000) (INT)

11	Simple operations and procedures (per hour)	5)
10	Simple operations in a crisis situation (per phase)	5)
10	Critical operations such as landing	5)
9	Critical operations in a crisis situation	5)
10	Know a specific function such as start, stop, etc.	
4	Learn a specific function by trail and error (per minute)	5)

Gun Combat (INT)

6	Judge a target's distance and size	1)
5	Judge a target's speed	1)
5	Judge wind speed and direction	1)
5	Determine range from the sound of gunfire	1)
7	Determine direction of source of gunfire	1)
7	Know a specific function such as reload, safety, sights	
6	Learn a function by trail & error (per minute, N = 3)	5)
Abil	Repair Small Arms SL = Gun Combat SL / 2 (up to MIN dam)	
Abil	Traps/Spotting SL = Gun Combat SL / 2	

Armed & Unarmed Hand-Hand Combat (STR, AGI)

	Block an archery projectile with a shield fired from:	
8	Over 10 hexes	
5	Under 10 hexes	
	Deflect archery projectile with a weapon fired from:	
5	Over 10 hexes	
3	Under 10 hexes	

Armed & Unarmed Hand-Hand Combat (continued) (STR, AGI)

	Block a thrown weapon with a shield, when thrown from:	
9	Over 5 hexes	
8	Under 5 hexes	
	Deflect a thrown object with a weapon, when thrown from:	
7	Over 5 hexes	
6	Under 5 hexes	
5	Catch a weapon by the handle	
Abil	Balance & Footwork SL = Hand - Hand Combat SL / 2	
Abil	Fall Recovery SL = Hand - Hand Combat SL / 3	
Abil	Hand-Hand Combat see Section 7.11	

Horsemanship (vs opponent's Horsemanship SL) (AGI)

10	Jump from a horse to a moving vehicle (see Fall Rec)	3)
10	Side riding blocking yourself from fire	
12	Jump a horse over a 4 foot fence	
7	Make a horse lie down quietly in concealment	
5	Control a horse near a large fire (per phase)	
4	Coax a horse to move over an unstable surface	
8	Combat maneuvering with both hands free (per phase)	
10	Combat maneuvering with one hand free (per phase)	
22-PD/4	Control a horse which has taken PD damage points failure and the horse bolts in a random direction at 5 to 10 hexes per phase.	
3	Regain control of a bolting horse (per phase)	
9	Remain mounted on a bolting horse (per phase)	
12 - SL	Force infantry with hand-hand weapons to give ground	
8 - SL	Force a mounted opponent to give ground	

Infiltration (vs target's Traps/Spotting SL) (AGI, INT, TS)

9 - T	Pick lock Keylock 0-3, Combination 1-5, Safe 8-16 (3 tries)	
7 - T	Find a way around a spotted alarm or trap (set off if fail)	
5 - T	Disarm an alarm, detector, or trap (set off if fail)	
6 - SL	Lose a tail in a crowd or town (per minute)	
8 - SL	Detect you are being tailed (per minute)	
9 - SL	Create a diversion drawing away 50% of the guards	
11	Hot wire a vehicle (3 tries)	
Abil	See Infiltration Section 2.9	
Abil	See Perception entry to sneak by someone	
Abil	Hide at a T level = Infiltration SL (see Traps entry)	
Abil	Espionage SL = Infiltration SL / 2	

Perception (TS)

8 - SL	Sensing someone is uneasy or lying (vs Con SL)		4)
9 - SL	Feeling from people a place harbors a trap (vs Con SL)		4)
6 - T	Feeling a place harbors a trap (mechanical trap)		4)
	Sense someone outside your Field of View at 2 hexes while:		
1 - SL	Deep sleep		
3 - SL	Critically occupied	Per phase vs Infiltration SL.	
4 - SL	Light sleep	Assumes infiltrator is moving at	
11 - SL	Awake off duty	1 HPP. If infiltrator is moving	
12 - SL	On duty	over 1 HPP add 1 to Success Roll	
15 - SL	Alerted to an alarm	for each HPP over 1.	

Repair (for more detailed rules, see Chapter 9) (INT)

9	Repair MIN damage with proper tools
5	Repair MIN damage without tools
7	Repair MIN damage with tools in half normal time
4	Repair MIN damage without tools in half normal time
5	Repair MIN damage with tools in a crisis situation

Scout (vs target's Espionage SL) (INT)

8	Cut travel times by 15% (one try)
Abil	Traps/Spotting SL = Scouting SL / 2
Abil	Survival SL = Scouting SL / 2
Abil	See Scouting Section 2.8

Sleight of Hand (vs target's Perception SL, T = Binding SL) (AGI)

5 - SL	Pick a pocket
6 - T	Pick a lock (assumes properly equipped)
7 - SL	Slip a small item from the hand to concealment
8 - SL	Quickly slip a small item from concealment to the hand
6 - SL	Exchange an item in the hand for a fake
7 - T	Crude manipulation of a tool with hands tied in front
4 - T	Crude manipulation of a tool with hands ties in back
4 - T	Complex manipulation with hands tied in the front
3 - T	Complex manipulation with hands tied in the back

Explosive Weapons (INT)

14	Know a specific function	
6	Learn a function by trial & error (per minute, N = 10)	5)
11	Disassemble the weapon into small components	
9	Reassemble the weapon from small components	
Abil	Repair Exp Weapon SL = Exp Weapon SL / 2 (up to MIN dam)	

Survival (Env = 14 plains good climate, 9 desert, 8 mountain winter, 5 Arctic. +4 if properly equipped & supplied) (INT)

6	Determine the number of sets of tracks	1)
0	Determine the weight from tracks	1)
7	Determine the age of the tracks	1)
Env	Wilderness survival in Environment Env (per day)	
Env - 6	Provide 20 man days food in a day's hunt, modern weapons	
Abil	Make a Trap of Level T = Survival SL /3	
Abil	Pursuit value P = Survival SL	
Abil	Infiltration SL = Survival SL / 3	

Traps / Spotting (vs target's Infiltration or Traps/Spotting SL) (INT, TS)

6 - T	Spot a trap or hidden object 6 ft ahead (per phase)	2)
11 - T	Probe for a mine, trap, or hidden object (per phase)	2)
8 - SL	Detect you are being tailed (per minute)	
5 - SL	Draw a tail into an engagement (per minute)	
Abil	Make an alarm, trap, tie up a person, or hide an item to a level T = Traps/Spotting SL	
Abil	Pursuit Value P = Traps/Spotting SL See Pursuit (Section 2.7) to pursue & engage an enemy	

Raw Materials

7A

Material	Source	Processed By (Tool Level)	Time Required	Yield
Construction Grade Lumber	Trees (average 3 tons/tree)	Lumber Mill (WW III) Power Equipment (WW II)	3 Hours per tree 22 Hours per tree	2 Tons lumber 1.5 Tons lumber
Concrete	1 part cement, 3 parts sand, 3 parts gravel	Cement Furnace & Quarry Sifter (III)	7 Tons per Hour	7 Tons per Hour
Metals iron, copper, tin (bronze, steel, brass)	Appropriate ores. Quality & Location up to Gamemaster	Smelting Plant (MW III) Small Shop Smelter (MW II)	2 Tons Ore / Hour 100 lb Ore / Hour	.5 Tons Metal 25 lb Metal
Metals such as Aluminum or Titanium	Appropriate ores. Quality & Location up to Gamemaster	Electric Separation Plant (MW IV) Small Shop Separator (MW III)	2 Tons Ore / Day 100 lb Ore / Day	.5 Tons Metal 15 lb Metal
Oil and Grease	Subterranean Reservoirs Certain Plants & Animal Fat	Collected by Drilling, (III) Separated in Refinery (CH IV) Harvest & Reduce in Still (CH II) (2 years for plants to mature)		

Tools of the Trades

7B

Tool Level	Mechanical Technology MT	Metal Working MW	Constructn CO	Wood Working WW	Glass Blowing GB	Optics OP	Micro Electronic MI	Cloth Working CW	Electrical EL	Plumbing PL	Chemical CH
I	40 S Tools 30 M Tools 2 L Tools 6 Man	20 M Tools 2 L Tools 6 Man	10 M Tools 5 L Tools 8 Man	12 M Tools 4 Man	4 S Tools 6 M Tools 2 Man	4 M Tools 2 Man	4 S Tools 2 MC Tools 1 L Tool 2 Man	8 XS Tools 4 M Tools 4 Man	2 S Tools 6 M Tools 2 Man	12 S Tools 6 M Tools 1 L Tool 2 Man	12 S Tools 4 M Tools 2 Man
II	2 S Tools 8 M Tools 6 Man 25 Kw	8 S Tools 1 M Tool 1 L Tool 6 Man 10 Kw	2 S Tools 6 M Tools 2 XL Tools 8 Man 270 Kw	3 S Tools 3 M Tools 4 Man 12 Kw	3 S Tools 1 M Tool 2 Man 9 Kw	4 S Tools 2 Man 1 Kw	3 SC Tools 1 M Tool 2 Man 3 Kw	4 S Tools 4 Man 1 Kw			4 SC Tools 2 M Tools 2 Man 3 Kw
III	2 S Tools 12 M Tools 8 Man 30 Kw	2 S Tools 3 M Tools 6 L Tools 8 Man 40 Kw	4 M Tools 8 XL Tools 10 Man 2400 Kw				2 SC Tools 1 MC Tool 2 Man 1 Kw	4 S Tools 4 Man 1 Kw			4 SC Tools 2 MC Tools 2 Man 4 Kw
IV	4 MC Tools 4 Man 8 Kw	3 M Tools 1 L Tool 4 Man 20 Kw	8 XL Tools 8 Man 5400 Kw				1 S Tool 2 MC Tools 2 Man 3 Kw				2 MC Tools 2 Man 4 Kw

Standard Parts

7C

Description		Scavenged From	Made by Hand Tools /Odds/ #	Spec. Mach.	Number per lb
Advanced ICs silicon, gold, plastic		Computers, "Smart Devices"	MI III / 8 / 4 E2 / 9 / 120	200	100
Bearings	XS	XS,S electric motors, some ME III machines	MT III / 6 / 2	100	25000
	S	Bicycles, ME II, ME III machines	MT III / 6 / 2	100	5000
	M	Vehicles, light trucks	MT III / 7 / 2	100	200
	L	Heavy trucks, large generators	MT III / 7 / 1	50	52
	XL	Heavy construction equipment (CO IV), tanks	MT III / 7 / 1	50	6
Electronic Comp	S	Low power electronic devices	*MT II / 9 / 4	400	2500
resistors, etc.	M	High power electronic devices, vehicles	*CH II / 10 / 20	400	100
copper, plastic	L	Industrial plants, power stations	* both required	100	1
ICs silicon, gold, plastic		Most electronic devices	MI II / 9 / 2 E2 / 10 / 30	800	1300
Nails	S	Picture frames, houses, furniture	MT II / 15 / 100	4000	1800
mild steel	M	Houses, fences	MT II / 15 / 100	3000	120
	L	Heavy timber constructions	MT II / 16 / 30	500	18
Rivets	S	Light aircraft, ground vehicles	MW II / 14 / 300	3600	1200
brass, aluminum,	M	Light aircraft, ground vehicles	MW II / 14 / 300	2200	450
or steel	L	Steel frame buildings	MW II / 15 / 100	800	30
Screws, Bolts	XS	Watches, miniature mechanisms	MT III / 7 / 5	1400	4000
hardened steel	S	Watches, S elect motors, appliances, vehicles	MT III / 9 / 5	2400	860
	M	Vehicles, appliances, machinery	MT II / 9 / 4	2400	45
	L	Heavy trucks, large machinery	MT II / 9 / 4	800	3
	XL	CO IV vehicles, tanks	MT II / 9 / 3	600	.5
Screws, Bolts	XS,S	Power armor, missiles	MT III / 6 / 1	120	4000
high tensile	M	Power armor, aircraft, space vehicles	MT III / 8 / 1	100	860
steel (aero)	L,XL	Space vehicles	MT III / 8 / 2	40	45
Springs	XS,S	Weapons, precision machinery	MT II / 10 / 15	1500	1600
hardened	M	Combustion engines, machinery	MT II / 11 / 8	300	150
steel	L,XL	Vehicles, garage doors	MT II / 11 / 4	40	.1
Switches	S	Low and high power electronic devices	MT II / 8 / 2	300	600
steel, copper,	M	High power electronic devices	MT II / 9 / 2	300	40
plastic	L	Industrial plants, power stations	MT II / 9 / 3	80	.5
Transistors	S	Most electronic devices	MI I / 11 / 5	1200	1000
silicon, plastic	L	Power electronics	MI I / 12 / 5	1200	150
Tubing & Pipe	XS,S	Science instruments, chemical devices	MW III / 8 / 20'	1200'	75,20'
copper, iron,	M	Heavy machinery, plumbing	MW III / 9 / 30'	1000'	1.5'
steel	L,XL	Plumbing, industrial chemical plants	MW III / 9 / 15'	400'	.2,.05
Wire	XS,S	XS electric motors, tuning coils, cable	MW III / 5 / 900'	5000'	3000'
electrical	M	Vehicles, house wiring, bailing wire, cables	MW III / 7 / 2000'	8000'	75'
or cable	L,XL	Heavy machinery, power substations, piano wire	MW III / 7 / 1600'	6000'	20,3'

Reprocessing Raw Materials

7D

Material	Loss	Reprocessing
Concrete	100%	Too difficult to reprocess
Glass	10%	Melt & Recast GB II 10 lb / hr
Lumber	30%	Clean & Cut WW I 1000 lb / hr
Oil	10%	Filter CH I 1 Gal / hr
Oil (spent)	50%	Filter & Process CH II 1 Gal / hr
Metal	10%	Melt & Recast MW II 50 lb / hr

Code	Skilled Trades
CH	Chemistry
CW	Cloth Working
CO	Construction
EL	Electrical
GB	Glass Blowing
MT	Mechanical Technology
MW	Metal Working
MI	Micro Electronics
OP	Optical
PL	Plumbing
WW	Wood Working

Code	Engineering Skills
E1	Civil, Mechanical, and Aerospace
E2	Electrical, Electronic, Micro Electronic
E3	Material & Chemical

Code	Parts Sizes
XS	Extra Small
S	Small
M	Medium
L	Large
XL	Extra Large

7E

	Project	Raw Materials	Standard Parts	Construction Tools / Base Odds / Time	Repair Tools / Base Odds / Time	Scavenge SL/Time
1	S Level I Tools	.1 lb Steel	-	MT I / 9/10 MW I /10/8	MAJ: MT I/10/7 MW I/11/5	0/0
2	M Level I Tools	.5 lb Steel .1 lb Wood	-	MT I /12/9 MW I /13/4	MIN: MT I/13/1 MAJ: MT I/12/3 MW I/13/1	0/0
3	MC Level I Tools	.2 lb Steel .2 lb Sht Steel .1 lb Quartz	12 XS Screws, 2 XS Springs	MT II / 8/45 MW I /13/3 OP I / 8/12	MIN: MT I/11/1 MAJ: MT II/ 8/25 OP I/ 8/12 MW I/13/3	2/1
4	L Level I Tools MT MW CO PL S Level II Tools	5 lb Steel 1 lb Wood	8 M Screws	MT II /10/8 E1 /12/2 MW I /11/10	MIN: MW I/12/1 MAJ: MW I/11/6 MT II/10/5 REP: MW I/11/12 MT II/10/9	1/.5
5	S Level II Tools MT CO WW OP CW	5 lb Iron 2 lb Steel	20 S Screws, 1 M Switch, 12' M Wire, 1 S Electric Motor (110)	MT II /10/8 E1 /11/6 MW II /11/15 EL I /13/1	MAJ: MW II/11/7 EL I/13/1 MT II/10/10 REP: MW II/11/18 EL I/13/1 MT II/10/20	2/1
6	SC Level II Tools MI CH	3 lb Steel 1 lb Brass .1 lb Quartz	12 XS Screws, 10 S Screws, 40 XS Bearings, 4 XS Springs	MT II / 7/65 E1 /11/20 MW II /11/12 OP II / 8/15	MIN: MW I/12/2 OP II/ 8/15 MAJ: MW II/11/6 OP II/ 8/15 MT II/ 7/30	3/2
7	M Level II Tools MT MW CO WW	300 lb Iron 150 lb Steel 20 lb Brass	50 S Screws, 20 M Screws, 100 M Bearings, 15' M Wire, 2 M Switches, 1 L Motor (111)	MT II / 9/160 MW II / 9/80 EL I /13/3 E1 /11/80	MIN: MW II/12/6 MT II/11/9 MAJ: MW II/11/45 MT II/10/75 REP: MW II/ 9/90 MT II/ 9/140	2/6
8	M Level II Tools GB MI CH	6 lb Steel 8 lb Sht Steel 3 lb Quartz 90 lb Fire Brick	24 S Screws, 6' S Tubing, 1 S Electric Motor (110), 1 S Pump (134), 10' M Wire, 3 M Switches, 200' Nichrome Wire	MT II /10/30 E1 /12/8 MW I /11/5 E3 / 9/4 GB II /11/12 EL I /12/4	MIN: MW I/12/1 GB II/11/12 MAJ: MW I/11/3 GB II/11/12 EL I/12/2 MT II/10/12 REP: MW I/11/8 GB II/11/12 EL I/12/2 MT II/10/35	1/2
9	XL Level II Tools CO	1.5 Tons Steel 100 lb Brass 6 Gallons Oil	120 M Bolts, 100 L Bearings, 30 L Bolts, 1 L Engine (112), 1 L PT (133), 1 M Pump (24), 40' L Hydraulic Lines (120)	MT II / 9/240 E1 /10/45 MWIII / 9/180	MIN: MT II/11/15 MW II/11/18 MAJ: MT II/ 9/110 MWIII/ 9/85 REP: MT II/ 9/280 MWIII/ 9/210	3/20
10	MC Level III Tools CH	20 lb Stainless 20 lb Sht Steel 5 lb Quartz 1 lb Teflon .1 lb Gold	40 XS Screws, 36 M Screws, 120' S Wire, 6 S Springs, 28 S Elect Comp, 3 ICs, 15' S Tubing, 30' M Wire, 2 Motors (110), 2 Pump (134), 1 Adv IC, 6 L Transistors	MT II / 8/140 E1 /12/26 MW I /11/10 E3 / 9/24 GB II /10/85 MI I /12/26 EL I /12/8	MIN: MT II/ 9/18 MW I/12/2 GB II/10/20 MAJ: MT II/11/8 MW I/11/8 GB II/10/85 MI I/12/16 EL I/12/6	4/12
11	MC Level III Tools MI	12 lb Sheet Steel 6 lb Plastic .1 lb Silicon	36 S Screws, 120' S Wire, 6 S Elect Comp, 20 ICs, 7 Adv ICs, 1 S Switch	MT II /10/65 E1 /12/8 MW I /11/8 E2 / 8/95 MI II / 9/90	MIN: MT II/11/8 MI I/11/6 MAJ: MT II/10/25 MI I/ 9/45 MW I/11/6	3/8
Chemistry						
12	Alcohol (1 Gallon)	40 lb Plants	-	CH II /12/4	-	0/0
13	Aspirin (100 doses)	.1 lb Stnd Chem	-	CH I /12/2	-	0/0
14	S Battery (rechargeable)	1 lb Stnd Chem .2 lb Ni and Cd .1 lb Sht Steel	-	MT II /12/8 E3 /10/4 MW II /12/6 CH II /11/6	MIN: MT II/13/2 CH I/12/1 MAJ: MT II/12/7 CH I/11/3 MW II/12/5	2/1

Project	Raw Materials	Standard Parts	Construction Tools / Base Odds / Time	Repair Tools / Base Odds / Time	Scavenge SL/Time
15 Plastic Explosive (1 lb)	6 lb Stnd Chem .3 lb Adv Chem	-	CHIII /10/12 E3 / 9/12	-	0/0
Electronics 16 Light Bulb (60W)	.1 lb Glass .1 lb Ceramic .01 lb Brass	3" XS Tungsten Wire, 2" S Steel Wire	MT I /13/8 E2 /12/2 GB II /11/4	MIN: GB II/11/4	1/.1
17 Meter (Analog Needle)	.1 lb Sht Steel .1 lb Glass .02 lb Iron	5' XS Wire, 8 XS Screws, 1 XS Spring	MTIII / 8/14 E2 /11/3 MW II /11/2 EL I /11/2 GB II /12/2	MIN: MW I/12/1 GB II/12/2 MAJ: MTIII/ 9/8 GB II/12/2 MW II/11/12 EL I/11/1	4/3
18 Radio (2 way)	.6 lb Sht Steel Wood Circuit Boards .02 lb Iron	40 S Electrical Components, 12 S Screws, 3' S Wire, 5' XS Wire, 2 S Switches, 4 S Battery (14), 12 S Transistors	MT II /12/5 E1 /13/2 MW I/12/4 E2 /11/6 EL I/11/8	MIN: MT I/12/1 EL I/13/1 MAJ: MT II/12/3 EL I/11/5 MW I/12/2 REP: MT II/12/6 EL I/11/10 MW I/12/5	3/5
19 Scent Tracker	1 lb Sht Steel .2 lb Silicon .1 lb Plastic	18 S Screws, 20' S Wire, 24 S Elec Comp, 20 S Trans, 1 XS Motor (27), 1 XS P (26), 6 S Battery (14), 2' XS Tube, 2 S Switches	MT II /10/15 E1 /12/6 MW I /11/4 E2 / 9/32 MI II / 8/35	MIN: MT II/11/2 MW I/12/1 MAJ: MT II/10/8 MW I/11/3 MI II/ 8/30	3/16
Miscellaneous 20 Chair	20 lb Wood, Glue	24 S Nails	WW I /12/24	MAJ: WW I/12/6	1/.2
21 Clothing	6 Yards Fabric	-	CW I /11/15	MAJ: CW I/11/6	1/.5
22 Hand Pump 4 gallons/min	8 lb Iron .5 lb Steel .2 lb Rubber	2 S Screws, 2 M Screws	MT II /10/4 E1 /13/2 MW II /11/6	MIN: MT II/12/1 MAJ: MT II/11/2 REP: MT II/10/3 MW II/10/6	1/.2
23 Mattress	12 lb Cloth	36' S Rope	CW I /12/10	MAJ: CW I/12/4	1/.5
24 Medium Pump 3000 Psi Pres.	28 lb Steel 2 lb Brass	2 M Springs, 24 M Bearings	MT II / 9/40 E1 /11/20 MW II /10/24	MIN: MT II/11/2 MW II/11/4 MAJ: MT II/10/12 MW II/10/10	2/2
25 Table	120 lb Wood, Glue	38 M Nails	WW I /12/18	MAJ: WW I/12/5	1/.5
26 XS Turbine Pump	.4 lb Stnl Steel .1 lb Teflon	16 XS Bearings, 6 XS Screws	MT IV / 7/60 E1 / 9/45	MIN: MT IV/ 9/8 MAJ: MT IV/ 7/45	4/2
Motors & Transmissions 27 XS Elec Motor .02 HP, .02 Kw	.1 lb Stnl Steel .1 lb Ce Cobalt	16 XS Bearings, 8 XS Screws 12' XS Wire	MTIII / 8/22 E1 /11/8 EL I /11/5 E2 / 9/7	MIN: MTIII/ 9/3 EL I/12/1 MAJ: MTIII/ 8/12 EL I/11/4	3/1
28 M Elec Motor 2 HP, 2 Kw	4 lb Iron 2 lb Steel .2 lb Brass	24 M Bearings, 16 M Screws, 80' M Wire	MT II /10/18 E1 /12/8 MW II /11/20 E2 /11/8 EL I /12/8	MIN: MT II/12/2 EL I/12/2 MAJ: MT II/11/12 MW II/12/11 EL I/12/6	2/1
29 S Combustion Engine 5 Horse Power .4 Gallons/Hour Alcohol	15 lb Iron 10 lb Steel 2 lb Brass .3 Gallons Oil	2 M Springs, 1 Spark Plug, 8 M Screws, 10 S Screws, 20' S Wire	MT II / 9/90 E1 /11/50 MWIII / 9/54 E3 /11/10	MIN: MT II/11/8 MW II/12/6 MAJ: MT II/ 9/38 MWIII/ 9/26 REP: MT II/ 9/70 MWIII/ 9/44	3/4

7E

Project	Raw Materials	Standard Parts	Construction Tools / Base Odds / Time	Repair Tools / Base Odds / Time	Scavenge SL/Time
30 M Combustion Engine 100 Horse Power 4 Gallons/Hour Alcohol	400 lb Iron 200 lb Steel 30 lb Brass 1 Gallon Oil 1 lb Rubber	60 M Bearings, 16 M Springs, 50' M Wire, 42 M Screws, Starter & Alternator, 2 Elec Motors (28), 1 L Bat (106), 10' L Wire, 6 Spark Plugs	MT II / 8/240 E1 /11/90 MWIII / 8/130 E3 /11/16	MIN: MT II/11/22 MW II/11/10 MAJ: MT II/ 8/110 MWIII/ 8/60 REP: MT II/ 8/200 MWIII/ 8/95	3/12
31 M Power Train Transmission, Drive, Differen.	250 lb Iron 250 lb Steel 20 lb Brass .5 Gallon Oil	20 S Screws, 10 M Springs, 80 M Bearings	MT II / 8/180 E1 /10/80 MWIII / 9/80	MIN: MT II/11/12 MW II/12/8 MAJ: MT II/ 8/60 MWIII/ 9/24 REP: MT II/ 8/140 MWIII/ 9/60	2/8
32 M Turbocharger +20% speed +50% load & fuel	30 lb Steel 10 lb Stainless Steel	24 S Screws, 30 M Screws	MTIII / 7/150 E1 / 9/65 MWIII / 9/60	MIN: MT II/10/8 MW II/11/5 MAJ: MTIII/ 8/55 MW II/10/18 REP: MTIII/ 7/120 MWIII/ 9/50	2/3
Power Armor 33 Armor (totals for whole body, take % hit location as part for 1 hit)	180 lb Ceramic 20 lb Titanium 30 lb Steel	180 S Aero Screws, 24 M Springs, 10lb Epoxy, 15 lb Kevlar	MTIII / 8/110 E1 /10/45 MW IV / 8/160 GB II / 9/140	MIN: MWIII/ 9/40 GB II/ 9/55 MAJ: MWIII/ 8/60 MTIII/ 8/210 GB II/ 9/90 any pene hit is MAJ, nonpene is MIN	4/18
34 Frame (note as above)	50 lb Titanium	240 S Bearings, 90 S Aero Screws	MT IV / 7/130 E1 / 7/160 MW IV / 6/170	MIN: MTIII/ 9/60 MWIII/ 9/50 MAJ: MT IV/ 8/85 MWIII/ 7/90	3/4
35 Gun Camera (2 on suit)	.3 lb Steel .06 lb Quartz	28 XS Aero Screws, 8 S Aero Screws, 6 XS Springs, 4' XS Wire, 1 Adv IC, 5 ICs	MT IV / 8/140 E1 /10/110 OP II /10/12 E2 / 8/170 MI IV / 9/25	MIN: MT IV/ 8/60 GB II/10/12 MAJ: MT IV/ 8/95 GB II/10/12 MI IV/ 7/60	5/4
36 Bicomp & Sensors	.05 lb Silicon .5 lb Steel .05 lb Tantalum	80 XS Screws, 16' XS Wire, 40' Fiber Optics Cable (114), 40 S Elec Comp, 7 Adv ICs, 25 ICs, 30 S Transistors	MTIII /10/60 E1 /11/45 MI IV / 7/290 E2 / 7/220	MIN: MTIII/11/15 MAJ: MTIII/10/35 MI IV/ 7/290	5/6
37 Power Pack & Life Support with Armor	14 lb Titanium 8 lb Stainless 2 lb Steel 40 lb Ceramic 8 lb Stnd Chem .5 lb Teflon .02 lb Silicon	32 S Aero Screws, 20 M Aero Screws, 4 M Springs, 18 S Elec Comp, 6 S Trans, 4 L Trans, 10 ICs, 28' S Stnl Tube, 50lb Li Hydride (124), 1 S Mot (110), 60' M Wire, 3 XS Mot (27), 2 XS P (26)	MTIII / 8/170 E1 / 9/90 MW IV / 7/125 E2 / 9/35 GB II / 9/35 E3 /10/25 MI IV / 8/45 CHIII / 7/90	MIN: MTIII/ 9/12 MWIII/ 9/8 MAJ: MTIII/ 8/80 MW IV/ 8/35 REP: MTIII/ 8/190 MW IV/ 7/130 MI IV/ 8/45 Above for internal damage only.	5/10
38 Servo System & Control Elec	20 lb Steel .25 lb Brass	90 XS Aero Screws, 220 S Aero Screws, 500' XS Wire, 350' M Wire, 160 S Bearings, 10 M Springs, 140' Hyd Line (38A), 70 Hyd Actuators (38B), 60 Sq Inch P Film (38C), 12 S Elec Comp, 8 L Transistors, 5 ICs	MTIII / 9/160 E1 /10/65 MWIII /10/65 E2 / 8/80 MI IV / 9/30	MIN: MTIII/10/22 MW II/11/12 MAJ: MTIII/ 9/105 MWIII/10/40 MI IV/ 9/30 REP: MTIII/ 9/130 MWIII/10/70 MI IV/ 9/40 For hits into pump/motor area	3/6
38A M Hydraulic Line	.25 lb Flex Tube	1200' XS Steel Wire	MT II /11/6	MIN: MT I/12/3	1/.5
38B Hydraulic Actuator	1.5 lb Steel .02 lb Teflon	2' XS Wire, 2 XS Screws, 2 XS Springs, 1 XS Bearing	MTIII / 8/42 E1 /10/45 EL I /10/6 E2 /10/6	MIN: MTIII/10/5 EL I/11/1 MAJ: MTIII/ 8/28 EL I/10/4	2/1
38C Piezo Sensor Film 60 Sq In	1 lb Stnd Chem .5 lb Adv Chem	-	CHIII / 8/25 E3 / 7/35		

Project	Raw Materials	Standard Parts	Construction Tools / Base Odds / Time	Repair Tools / Base Odds / Time	Scavenge SL/Time
Structures					
39 Concrete Base Slab per 1000 Sq Ft	55 Tons Concrete 2.5 Tons St Rebar 400 lb Wood	120' M Pipe, 360' L Wire, 100' M Pipe, 60' L Pipe, 300 M Nails	CO II /12/280 E1 /11/25 EL I /13/36 PL I /12/48	MIN: CO II/13/24 EL I/13/2 MAJ: CO II/12/140 EL I/13/16 PL I/12/30	0/80
40 Concrete Walls 100' long 10' High 6" Thick	42 Tons Concrete 2 Tons St Rebar 3.5 Tons Wood 50 lb Steel	2200 M Nails, 24 M Screws per window/door frame, 80' M Pipe, 240' L Wire, 40' M Pipe 20' L Pipe, 4 M Switches	CO II /10/330 E1 /10/30 EL I /13/28 PL I /12/20	MIN: CO II/11/40 EL I/13/2 MAJ: CO II/10/190 EL I/13/10 PL I/12/12	0/70
41 Concrete Roof/Floor per 1000 Sq Ft 10 foot ceiling	65 Tons Concrete 2.8 Tons St Rebar 4 Tons Wood 600 lb Steel Duct	2400 M Nails, 250 M Screws, 220' M Pipe, 60' L Pipe, 360' L Wire	CO II / 9/600 E1 / 9/50 EL I /13/36 PL I /12/48	MIN: CO II/12/50 EL I/13/2 MAJ: CO II/ 9/380 EL I/13/16 PL I/12/30	0/90
42 Sheet Metal & Steel Frame Walls 100' long 10' high	1.8 Tons Sht Stl 800 lb Steel I Beam	400 M Screws, 4 M Switches, 80' M Pipe, 240' L Wire	CO II /12/60 E1 /13/2 EL I /13/28	MIN: CO II/13/8 MAJ: CO II/12/72 EL I/13/12 REP: CO II/11/130 EL I/13/40	1/22
43 Sheet Metal & Steel Frame Roof per 1000 Sq Ft	1.8 Tons Sht Stl 1.8 Tons I Beam 10 Gallons Tar	400 M Screws, 120' M Pipe, 360' L Wire	CO II /10/160 E1 /13/4 EL I /13/22	MIN: CO II/12/15 MAJ: CO II/10/190 EL I/13/10 REP: CO II/10/270 EL I/13/22	1/48
44 Stone & Mortar Wall 20' long, 6' high, 2' thick	19 Tons Stones 4 Tons Concrete	-	CO I /12/24	MIN: CO I/13/2 MAJ: CO I/12/16 REP: CO I/12/22	0/10
45 Wood Frame House 1000 Sq Ft 1 Story	9.6 Tons Wood 64 Glass Panes 9 Tons Concrete	4200 M Nails, 120' M Pipe, 60' L Pipe, 6 M Switches, 16 M Hinges, 320' M Wire	CO I /11/360 E1 /11/35 EL I /13/60 PL I /12/80	MIN: CO I/12/50 MAJ: CO I/11/200 EL I/13/20 PL I/12/60 REP: CO I/11/360 EL I/13/75 PL I/12/110	1/150
Vehicles					
46 Canoe, four man 800 lb cap weight 95 lb	60 lb Wood 50 lb Leather 2 Gal Tar/Resin 80 Foot Gut/Twine	60 S Nails	WW I /12/22 CW I /11/36	MIN: CW I/12/6 MAJ: WW I/12/14 CW I/11/22	1/6
47 Dirt Bike frame & suspen 200 lb load 50 mph speed	60 lb M Pipe 10 lb Sht Steel .3 Gallons Oil	40 M Bearings, 40 M Screws, 2 M Springs, 4 L Springs, 6' S Cable, 4' S Pipe, S Eng (29), S Pwr Trn (47A), 2 Wheels & Tires (47B)	MT II /10/38 E1 /12/15 MW II /12/20	MIN: MW I/13/4 MAJ: MT II/11/16 MW II/12/12 REP: MT II/10/42 MW II/12/22	2/4
47A S Power Train Gearbox & Shaft Drive	30 lb Iron 25 lb Steel 2 lb Brass .3 Gallons Oil	30 S Screws, 22 M Screws, 4 M Springs	MT II / 8/110 E1 /12/35 MW II /10/75	MIN: MT II/11/6 MW II/12/4 MAJ: MT II/ 8/32 MW II/10/12 REP: MT II/ 8/72 MW II/10/38	3/3
47B Wheel Rim & Hub	20 lb Steel	40 M Bearings	MTIII / 8/24 E1 /12/16 MW II /10/28	MIN: MTIII/ 8/2 MW II/10/2 MAJ: MTIII/ 8/16 MW II/10/12	1/.5
Tire	7 lb Rubber 1 lb Hvy Cloth	12' M Steel Wire	MW II /10/8 E3 /11/6 CH II /11/8	MIN: CH II/12/3 MAJ: CH II/11/5 MW II/10/4	1/2

7E

Project	Raw Materials	Standard Parts	Construction Tools / Base Odds / Time	Repair Tools / Base Odds / Time	Scavenge SL/Time
48 Glider 400 lb capacity	600 lb Sheet Al 180 lb Aluminum 10 lb Steel 1 lb Brass 25 lb Plexiglass (or 35 lb Glass)	130 S Bearings, 170' Steel Cable, 3000 S Aluminum Rivets, 4 S Springs, 12 M Springs, 250 M Aluminum Rivets	MT II /10/128 E1 / 9/90 MWIII / 9/230 GB II /10/35	MIN: MW II/11/15 MAJ: MT II/10/45 MWIII/ 9/125 REP: MT II/10/95 MWIII/ 9/270	3/50
49 Light Truck (800 lb cap) (70 mph speed)	900 lb Sht Steel 100 lb Steel 5 lb Rubber 6 Yards Fabric 60 lb Glass	140 M Screws, 12 M Springs, 40 L Bolts, 12' S Steel Cable, M Combustion Engine (30), Power Train (31), Suspension (49A), 4 Wheels and Tires (49B)	MT II /11/45 E1 /12/70 MWIII / 9/180 GB II /10/45	MIN: MW I/12/20 GB II/11/15 MAJ: MT II/11/18 MWIII/ 9/85 GB II/10/30 REP: MT II/11/65 MWIII/ 9/250 GB II/10/40	2/12
49A Suspension	130 lb Steel 5 lb Rubber 2 lb Brass	12 L Bolts, 2 L Springs	MT II / 9/30 E1 /12/50 MWIII / 9/80	MIN: MW II/11/15 MAJ: MT II/ 9/15 MWIII/ 9/50 REP: MT II/ 9/25 MWIII/ 9/110	2/3
49B Wheel Rim & Hub	30 lb Steel	20 M Bearings, 5 L Bolts	MTIII / 8/22 E1 /12/6 MWIII / 9/20	MIN: MT II/ 8/2 MW II/10/3 MAJ: MTIII/ 8/16 MWIII/ 9/10	1/.5
Tire	11 lb Rubber 2 lb Hvy Cloth	330' S Steel Wire, 11' M Steel Wire	MW II / 9/18 E3 /10/8 CH II /10/12	MIN: CH II/11/4 MAJ: CH II/10/8 MW II/9/12	1/4
Weapons 50 Garrotte	.1 lb Steel	2' S Steel Cable	MT I /11/3	MIN: MT I/13/1 MAJ: MT I/11/2	1/.1
51 Blast Grenade	.25 lb Sht Steel .1 lb Steel	.35 lb Plastic Exp (15), Detonator (109)	MT II /10/4 E1 /12/4 MW II /12/6 E3 /11/2	MIN: MW II/13/1 MAJ: MW II/12/2 MT II/10/2	4/1
52 Knife	.5 lb Steel .06 lb Wood	-	MT I /12/2 MW I /11/12	MIN: MT I/13/1 MW I/12/2 MAJ: MT I/12/3 MW I/11/10	0/.5
53 Motor 60mm	35 lb Steel	12 M Screws	MT II /10/40 E1 /12/9 MW II /10/30	MIN: MT II/11/2 MW I/11/3 MAJ: MT II/10/24 MW I/10/16	2/.5
54 Pistol (20th cent) automatic	1.5 lb Steel .5 lb Plastic	12 S Screws, 2 S Springs, 3 XS Springs	MTIII / 8/58 E1 /10/60 MW II /10/30	MIN: MTIII/10/2 MAJ: MTIII/ 8/32 MWIII/10/4	3/1
55 Rifle (20th cent) automatic	10 lb Steel 2 lb Plastic	16 S Screws, 2 S Springs, 4 XS Springs	MTIII / 8/85 E1 /10/65 MWIII /10/30	MIN: MTIII/10/2 MAJ: MTIII/ 8/50 MWIII/10/10 REP: MTIII/ 8/75 MWIII/10/22	3/1
56 Laser	8 lb Aluminum (or Steel) 2 lb Wood .4 lb Quartz 1 lb Stnd Chem	16 XS Screws, 12' S Steel Tube, 2 XS Electric Motors (27), 2 XS Turbine Pumps (26), 72' S Wire, 8 S Transistors, .5 lb Lithium Hydride (124), 16 S Electrical Components, 8 ICs, 1 Adv IC, 20 S Screws	MTIII / 8/92 E1 / 9/90 MWIII /10/45 E2 / 8/60 OP IV /10/30 E3 / 8/60 MI II / 9/35 CH II / 9/12	MIN: MT II/10/6 MW II/11/5 OP IV/10/12 MAJ: MTIII/ 8/30 MWIII/10/24 OP IV/10/30 MI II/ 9/22 CH II/ 9/12	4/10

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Project	Raw Material	Standard Parts	Construction Tools/Base Odds/Time	Repair Tools/Base Odds/Time	Scavenging
101 Air Compressor (1.5 CFM)	P24 + P28	P24 + P28	P24 + P28	P24 + P28	P24 X 2
102 Airplane, 4 Man (6 Gal/hr)	P30 + P48 X 1.5	P30 + P48 X 1.5	P30 + P48	P30 + P48	P48 X 1.5
103 Antibiotics (100 doses)	P38C X .2	-	P38C + 2 X .5	-	-
104 Armor Plate	P53 X 6	-	P49A + 2 X .2	P499A + 2 X .2	P1
105 Autodoc	P10 X 4	P10 + P11	P10 - 1 X 2	P10 - 1 X 2	P10 X 2
106 L Battery	P14 X 20 + P54	-	P14 X 3	P14 X 3	P14 X 3
107 Caseless Munitions (AP)	P26 X 5 + P15	-	P14 - 2 X 2	-	P8
108 Compound Bow	P52 + P20 X .2	P50 X 4	P20 - 3 + P4 X 2	P20 - 2	P38A
109 Detonator/Fuse (200)	P15	-	P15 - 1 X 3	-	P6
110 S Electric Motor (.5 Kw)	P28 X .6	P28 X .8	P28	P28	P28
111 L Electric Motor (9 Kw)	P28 X 3	P28 X 3	P28 X 1.5	P28	P28
112 L Combust Engine (18 GPH)	P30 X 2	P30 X 2	P30 X 1.5	P30 X 1.5	P30 X 2
113 Epoxy (1 lb)	P38C	-	P12 - 2	-	-
114 Fiber Optic Cable (500')	P13 + P16	-	P16 - 1 X 1.5	-	P1
115 First Aid Supplies (1 lb)	P38C X 2	-	P38C + 2 + P22	-	P4
116 Gases for Welding Torch	P15 X .5	-	P12	-	P27
117 Green House (3000 sq ft)	P45 X .3 + P15 X 100	P45 X .2	P45 X 3 + P15 X 5	P45 X .2	P45 X .2
118 Hang Glider	P48 X .1 + P21 X 3	P48 X .1	P48 X .3 + P21 X 2	P48 X .3 + P21 X 2	P9
119 Hot Air Balloon (3 Man)	P21 X 45 + P25	P23 X 25	P21 X 20 + P25	P21 X 20 + P25	P42
120 L Hydraulic Line	P38A X 2	P38A X 2	P38A X 1.5	P38A	P38A
121 Hydroponics (3000 sq ft)	P10 + P43	P10 + P43	P10 + P43 X .5	P10 + P43 X .5	P10 + P43
122 Hydroponics Supply (1 yr)	P15 X 140	-	P13 X 10	-	-
123 Kevlar (1 lb)	P38C X 4	-	P38C + P22	-	-
124 Lithium Hydride (1 lb)	P15	-	P12 - 2 X 2	-	P11
125 Medical Supplies (1 lb) Advanced	P38C X 3	-	P38C X 2 + P22	-	P6
126 Mess Kit	P51 X 2	-	P2	P2	P2
127 Metal Detector	P18 X 2	P18	P18	P18	P18
128 Microwave Oven	P3 X 50	P5 + P18	P5 - 2 + P18 - 1	P5 + P18	P18 X 2

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Project	Raw Material	Standard Parts	Construction Tools/Base Odds/Time	Repair Tools/Base Odds/Time	Scavenging
129 Mortor Round, 60mm	P51 X 3	P51 X 2	P51 - 1 X 2	P51 -1 X 2	P51
130 Paint (1 Gal)	P15	-	P12 - 1	-	-
131 Plastic (1 lb)	P38C	-	P12 - 2	-	-
132 Portable Power Receiver	P11 X 2	P11 + P42	P11 + P18 - 2	P11 + P18 - 2	P11 X 2
133 L Power Train	P31 X 2	P31 X 1.5	P31 X 1.5	P31 X 1.5	P31 X 2
134 S Pump	P24 X .6	P24	P24	P24	P24
135 Refrigerator	P11 X 6	P5	P11 X .5 + P4	P11 X .5	P7
136 Sailing Boat, 24' (8 man)	P25 X 7 + P21 X 3	P25 X 7 + P23 X 4	P25 - 2 X 8 + P23	P25 - 2 X 8 + P23	P31 X 2
137 Slivergun Flechettes (200)	P15 X .5 + P26	-	P47B1 + P38C	P47B1 + P38C	P38
138 Solar Cell Array (1 Kw)	P19 X 40 + P26	P5 + P18	P19 + 1 X 2	P19 + 1 X 2	P19
139 Solar Water Heater 100 gallons per hour	P48 X .3	P8	P5 X 2	P5 X 2	P7 X 2
140 TV Camera & Transmitter	P35 + P11 X .1	P35	P4 + P35	P4 + P35	P36
141 TV Receiver & Recorder	P11	P11 + P19	P11 X 1.5	P11 X 1.5	P11
142 XS Level I Tools	P1 X .02	-	P1 - 1	P1 - 1	P1
143 L Level II Tools, MW	P8 X 4	P8 X 4	P8 X 2	P8 X 2	P8 X 2
144 Ultrasonic Alarm 7 hex radius	P19	P18	P18	P18	P18
145 Video Recording Pack 6 hour duration	P18 X .5	P11	P11 + 1 X .5	P11 + 1 X .5	P11
146 L Wheel (Rim & Tire)	P49B X 4	P49B X 2	P49B X 2	P49B X 2	P49B X 2
147 Windmill Generator 100 Kw	P31 X 6 + P42	P28 X 10	P28 X 6 + P31	P28 X 6 + P31	P31 X 5

Other Projects	Use
201 Agricultural Machinery	P9
202 Autoclave (Sterilizer)	P8
203 Backhoe	P9
204 Bridge (50 foot)	P43
205 Chemical Synthesizer	P10
206 Desalinizer (water purifier)	P8

Other Projects	Use
207 Freezer	P135
208 Furnace, Small	P8
209 Hammer	P2
210 Lathe	P7
211 Mill	P7
212 Plastic (1 lb)	P38C

Other Projects	Use
213 Printing Press	P7
214 Radial Saw	P5
215 Screwdriver	P2
216 Still	P8
217 Teflon (1 lb)	P38C
218 Textile Equipment	P7

Equipment Table

Armor/Clothing	Weight	Armor PF			
		Helm	Visor	Body	Limbs
Clothing	5.0	-	-	-	-
Cold Weather Gear	9.0	-	-	-	-
Light Flexible	2.0	-	-	4	-
Medium Flexible	2.5	-	-	6	-
Heavy Flexible	3.0	-	-	10	-
Combat Suit CS	7.4	4	4	2	2
CS L1	13.9	10	10	16	2
CS L2	29.3	20	10	30	2
CS L3	37.1	20	10	40	2
CS L4	47.1	30	10	50	2
CS L5	56.2	40	10	60	2
Power Armor (HCPA)	640.0	100	100	100	100
Power Armor (MCPA)	400.0	60	60	60	60
Power Armor (LCPA)	270.0	30	30	30	30
DRGN Combat Suit	10.0	2	2	2	2

Class 1

Personal Equipment

00-04	4.5	Bedroll/Tent
05-24	.1	Belt
25-25	1.0	Camera
26-35	2.5	Canteen full
36-37	1.0	Cooking Kit
38-67	.3	Days Rations
68-73	1.5	Flashlight
74-74	.2	Hnd Calcultr
75-79	.1	Lighter
80-83	.3	Mess Kit
84-87	1.0	Pers. Hygien
88-91	.2	Pocket Knife
92-95	.5	Rain Gear
96-99	.1	Watch

Weapon Accessories

00-09	.2	Cartrg Pouch
10-19	3.6	Crowbar
20-29	.6	Fght Harness
30-49	.4	Holster
50-69	.2	Mag Pouch 2
70-99	.4	Sling

General Equipment

00-04	13	Bolt Cutters
05-12	.3	Chisel
13-22	3.0	Climbing Eq.
23-56	2.0	Frame Pack
57-76	4.0	Hand Tool Kt
77-94	.3	Headset Comm.
95-99	5.5	Prybar

Class 2

Personal Equipment

00-04	1.0	Bayonet
05-09	1.0	Binoculars
10-24	2.0	Entrnch Tool
25-54	1.0	Eq. Harness
55-74	.1	First Aid Kt
75-79	.5	Radio
80-84		Pers Eq CL 3
85-94		Weap Ac CL 2
95-99		Weap Ac CL 3

Weapon Accessories

00-09	1.0	Bipod
10-29	2.5	Compound Bow
30-47	3.0	Crossbow
48-52	1.5	Flaregun
53-97	2.5	Optical Scope
98-99	2.6	Sword

General Equipment

00-02	27	Chainsaw
03-18	30	Field Med Kit
19-54	8	Field Radio
55-59	800	Horse
60-61	11	Horse Pack
62-62	.5	Lock Pick Kit
63-73	8	Mech. Tool Kt
74-74	2	Megaphone
75-76	4	Rope 100 ft
77-80	28	Saddle
81-82	45	Scuba Gear
83-99	14	Ski Gear

Class 3

Personal Equipment

00-34	3.0	Navigation Eq
35-72	3.0	Nght Vision Eq
73-97		Weap Acc CL 4
98-99		Weap Acc CL 5

Weapon Accessories

00-49	.1	Mase
50-59	1.3	Pistol Stock
60-69	1.0	Smoke Grenade
70-92	1.0	Tear Gas Gren
93-97		Grenade
98-99		Weap Acc CL 4

General Equipment

00-01	12	Abrasive Saw
02-03	2	Block & Tackle
04-05	110	Cutting Torch
06-15	320	Dirt Bike
16-20	40	Elect Repair Kt
	8	Fire Proof Suit
21-25	+20	w 30 min Air
26-27	2	Gas Mask
28-30	45	Hang Glider
31-32	27	Hydraulic Jack
33-39	200	Jet Ski
40-42	.1	Med Combt Drug
43-47	120	Med Evac Trans
48-57	55	Med Kit (Auto)
58-87	50	Port Pwr Recvr
88-89	160	Power Winch
90-94	1	Spotlight
95-99		Weap Acc CL 5

Major Equipment

00-00	Air Compressor
01-08	Civilian Ground Car
09-12	Construction Equip.
13-17	Construction Supply
18-29	EPP Stockpile
30-42	Farming Equipment
43-45	Fire Fighting Equip
46-52	Food Processing Eq.
53-60	Food Stores
61-61	Fork Lift
62-62	Jack Hammer
63-63	Lase Welding Unit
64-70	Mobile Power Recvr
71-81	Off Road Vehicle
82-87	Paper Products Eq.
88-89	Small Crane
90-95	Telecomm. Equip.
96-99	Textile Equipment

Class 4

Weapon Accessories

		Shield 3x7 ft
00-02	66	PF 34
03-07	133	PF 68
08-19	200	PF 102
20-22	.6	Pistol Silencr
23-24	.4	Radio Detonatr
25-59	.4	Starshell
60-74	5	Tear Gas Gun
75-84	3	Tranq Gun
85-99	2	TNT Charge

General Equipment

00-14	250	Bio Doc
	5.5	Isolation Suit
15-24	+4	w Air Filter
25-50	+7	w Life Suprt
51-54	+7	w 24hr LS ex
55-64	10	Parachute
65-78	10	Computer
79-80	+4	w Rmt Sensor
81-84	+4	w Inertl Nav
85-92		General Eq CL5
93-94		General Eq CL6
95-99		Weap Acc CL 6

Major Equipment

00-01	Armored Truck
02-06	Construction Supply
07-16	EPP Stockpile
17-46	Heavy Truck
47-69	Light Truck
70-87	Off Road Vehicle
88-96	Recreational Boat
97-97	Recreational Plane
98-98	Recreational Glider
99-99	Tree Shredder

Class 5

Weapon Accessories

00-03	1.5	Adv Aiming Sys
04-08		Grenade Lnchr
09-58		Grenade
59-68	.4	Lase Pwr Pack
69-78		Explosive Weap
79-80	48	Radar Fire Loc
81-82	1.5	SMG Silencer
83-89		Exp Weap Ammo
90-94	2	TNT Charge
95-99	30	Tripod

Class 5

General Equipment

00-09	18	Audio/Video
10-34	10	Direct. Sound
35-64	8	Metal Detector
65-74	12	Position Track
75-79	15	Remote Video
80-89	8	Scent Tracking
	7.4	Spacesuit
90-90	+7	w Life Sup.
91-98	+7	w 24hr LS ex
99-99	+17	w Manvr Jets

Major Equipment

00-01	Armored Truck
02-06	Asphalt Machine
07-11	Backhoe
12-16	Bulldozer
17-36	Civilian Car
37-46	Concrete Mixer
47-51	Earth Mover
52-68	EPP Stockpile
69-73	Ground Surfacing Eq
74-78	Ground Veh Rep Fac
79-88	Heavy Truck
89-90	Large Lift Crane
91-93	Military Grav APC
94-97	Small Barge
98-99	Slit Trench Digger

Class 6

Weapon Accessories

00-09	Battlepck Pwr Pack
10-95	Exp Weapon Ammo
96-99	Power Armor Parts

General Equipment

00-09	Lie Detector
10-69	Pwr Relay Station
70-89	Radar Unit
90-99	Sonar Unit

Major Equipment

00-03	Grav Recon Vehicle
04-13	Grav Veh Repair Fac
14-26	Heavy Machine Shop
27-53	Light Machine Shop
54-54	Light Grav Tank
55-64	Medical Facility
65-79	Medical Supplies
80-99	Pwr Relay Station

Vehicle Data Table

9A

Vehicle	Size Feet L - W - H	Weight (tons) Gross	Weight (tons) Cargo	Passenger Capacity	Target Size ALM Front	Target Size ALM Side	Max Speed (HPP) On	Max Speed (HPP) Off	Range	Fuel Load
Ground Car	15 - 5 - 5	2	1	3	14	17	60	-	-	-
Ground Truck	30 - 10 - 10	18	10	40	18	22	40	-	-	-
All Terrain Vehicle	10 - 5 - 5	2	1	3	14	16	40	20	300	240
All Terrain Truck	24 - 8 - 8	15	9	36	18	21	40	15	300	1200
All Terrain Fighting Vehicle	16 - 8 - 5	7	1	3	15	18	40	20	300	1200
Grav Armored Pers. Carrier	30 - 10 - 6	16	3	12	16	20	300	300	2150	23
Grav Carrier	30 - 10 - 10	22	9	36	18	22	250	250	2150	35

Notes

Speed in mph = Speed in HPP X 2

Damage Sum = 3(6) + Damage # + Projectile Bonus

Damage Level = Damage Sum + (6)

Vehicle Combat Data Table

9B

Vehicle		Driver	Passgr	Passgr Void	Power Train	Suspen	Wheel	PRS Pwr Sup	Combust Engine	Fuel Tank	Weapon Turret
Ground Car	TS ALM	9	12	14	6	4	8	10	-	-	-
	Hit Roll	00-06	07-27	28-80	81-82	83-83	84-89	90-99	-	-	-
	Armor PF	1	1	1	8	3	1	1	-	-	-
	Damage #	-2	-	-	0	-4	4	3	-	-	-
Ground Truck	TS ALM	9	18	20	11	8	10	14	-	-	-
	Hit Roll	00-00	01-24	25-91	92-93	94-94	95-95	96-99	-	-	-
	Armor PF	2	1	1	12	7	1	2	-	-	-
	Damage #	-2	-	-	0	-4	4	3	-	-	-
ATV	TS ALM	9	12	13	6	5	8	-	6	4	-
	Hit Roll	00-07	08-31	32-84	85-87	88-88	89-94	-	95-97	98-99	-
	Armor PF	1	1	1	8	6	1	-	20	1	-
	Damage #	-4	-	-	0	-4	4	-	1	2	-
ATT	TS ALM	9	18	17	11	8	10	-	11	9	-
	Hit Roll	00-00	01-48	49-90	91-92	93-93	94-95	-	96-98	98-99	-
	Armor PF	2	2	2	12	7	2	-	45	5	-
	Damage #	-6	-	-	0	-4	-6	-	1	0	-
ATFV	TS ALM	9	12	16	10	8	9	-	11	9	9
	Hit Roll	00-02	03-12	13-75	76-81	82-83	84-87	-	88-93	94-96	97-99
	Armor PF	180	180	180	190	187	180	-	190	180	180
	Damage #	-6	-	-	0	-4	-6	-	1	0	-2

Vehicle		Driver	Passgr	Passgr Void	Non-Ess Electrn	Remote Visual	Power Supply	Grav Genrtr	Landing Gear	Weapon Turret	Weapon Rack
Grav APC	TS ALM	9	15	17	7	1	10	10	7	9	9
	Hit Roll	00-01	02-22	23-87	88-88	89-89	90-92	93-94	95-95	96-97	98-99
	Armor PF	180	180	180	180	10	200	200	180	180	100
	Damage #	-6	-	-	0	0	2	3	-6	-2	-2
Grav Carrier	TS ALM	9	17	20	7	1	11	11	9	9	9
	Hit Roll	00-00	01-25	26-92	93-93	94-94	95-95	96-96	97-97	98-98	99-99
	Armor PF	30	30	30	30	10	60	60	30	30	30
	Damage #	-6	-	-	0	0	2	3	-7	-2	-2

9C

Projectile Bonus

Projectile Small Arms	0
Lase Fire	-2
High Explosive Round	+10
HEAT Round	+8

9D

Vehicular Damage Table

Damage Sum	
4	Superficial
5-8	1/6 Loss of Function
9-11	2/6 Loss of Function
12-13	3/6 Loss of Function
14-15	4/6 Loss of Function
16-17	5/6 Loss of Function
18	Total System Out

9E

Damage Repair Table

Damage Level	
Under 10	MIN Damage
10 - 14	MAJ Damage
15 - 18	REP Damage
Over 18	No Repair

Troops and Enemies Description Table

Type	Former Affiliation		Characteristics				Pursuit Skill	Espion Skill	Armor	PF	Weapon	MS	SAL	CA	KV	Aim Time ALM										Exp
																			Aim Time in AC							
			STR	INT	WIL	AGI										1	2	3	4	5	6	7	8	10	12	
000-012	Imperium	Civilian	10	10	10	10	1	1	None	-	X7MP1	6	7	6	10	-11	-4	-3	-2							.7
		Law Enf.	12	12	14	12	10	10	CS L1	16	LAR7	4	10	5	28	-11	0	3	6	8	10	12	13	15		1.2
		Starforce	13	12	15	13	6	6	CS L1	16	LAR8	4	12	5	45	-9	2	5	8	10	12	14	15	17		1.4
		Starforce	12	15	18	15	8	8	HCPA	100	LAR8	7	12	10	54	-9	2	5	8	10	12	14	15	17		2.2
013-049	Trident	Civilian	10	10	10	10	1	1	None	-	X7MP1	6	7	6	10	-11	-4	-3	-2							.7
		Law Enf.	14	14	13	14	10	13	CS L2	30	LAR7	4	12	5	39	-9	2	5	8	10	12	14	15	17		1.5
		Starforce	13	12	13	13	6	8	CS L1	16	LAR8	4	13	5	46	-8	3	6	9	11	13	15	16	18		1.5
		Starforce	12	15	16	15	8	10	HCPA	100	LAR8	7	13	10	56	-8	3	6	9	11	13	15	16	18		2.3
050-111	Scan	Civilian	10	10	10	10	1	1	None	-	AP6-8	6	7	6	10	-11	-5	-3	-2	-1	0					.7
		Civilian	10	10	10	10	2	2	None	-	X7MP1	6	9	6	15	-9	-2	-1	0							.9
		Starforce	14	14	17	14	5	6	CS L2	30	LAR8	4	12	5	51	-9	2	5	8	10	12	14	15	17		1.5
		Starforce	12	14	18	14	8	8	HCPA	100	LAR8	7	13	10	63	-8	3	6	9	11	13	15	16	18		2.3
112-120	Subcon	Civilian	10	10	10	10	1	1	None	-	AP5-8	6	7	6	10	-11	-4	-3	-2	-1	0					.7
		Civilian	10	10	10	10	2	2	None	-	X7MP1	6	9	6	15	-9	-2	-1	0							.9
		Starforce	13	12	13	13	4	3	CS L1	16	LAR7	4	10	5	26	-11	0	3	6	8	10	12	13	15		1.2
		Starforce	14	14	14	14	6	4	CS L2	30	LAR8	4	11	5	35	-10	1	4	7	9	11	13	14	16		1.4
121-128	Surrogate	Civilian	12	10	10	10	2	1	CS L1	16	SMP8	4	9	4	15	-11	-2	1	3	4	5	6				1.1
		Civilian	12	10	12	12	3	2	CS L1	16	SAR8	4	10	4	24	-12	-2	1	3	4	5	6	7	9	10	1.2
		Starforce	12	15	15	14	8	4	HCPA	100	LAR8	7	12	10	45	-9	2	5	8	10	12	14	15	17		2.2
		Starforce	12	15	16	15	10	6	HCPA	100	LAR8	7	13	10	56	-8	3	6	9	11	13	15	16	18		2.3
129-132	Surrogate	Civilian	12	10	10	10	1	1	CS L1	16	AP7-8	4	7	4	10	-11	-4	-3	-2	-1	0	1				.9
		Civilian	12	10	10	10	2	2	CS L1	16	SMP8	4	9	4	15	-11	-2	1	3	4	5	6				1.1
		Starforce	15	12	12	15	7	4	CS L3	40	LAR7	5	10	6	24	-11	0	3	6	8	10	12	13	15		1.4
		Starforce	12	15	16	15	8	6	HCPA	100	LAR8	7	12	10	48	-9	2	5	8	10	12	14	15	17		2.2
133-182	Landcaste	Civilian	10	10	10	10	1	1	None	-	AP6-8	6	7	6	10	-11	-5	-3	-2	-1	0					.7
		Civilian	12	10	10	10	1	1	CS L1	16	X7MP1	4	9	4	15	-9	-2	-1	0							1.1
		Law Enf.	14	12	12	12	6	6	CS L2	30	SMP8	4	11	5	30	-9	0	3	5	6	7	8				1.4
		Law Enf.	15	14	14	14	9	9	CS L3	40	SAR8	4	12	5	42	-10	0	3	5	6	7	8	9	11	12	1.6
183-200	Landcaste	Civilian	10	10	10	10	1	1	None	-	X7MP1	6	7	6	10	-11	-4	-3	-2							.7
		Civilian	10	10	10	10	1	1	Flex	10	SMP8	5	9	5	15	-11	-2	1	3	4	5	6				1.0
		Military	15	12	12	12	5	4	CS L3	40	AR8	4	11	5	30	-13	-3	1	3	5	6	7	8	10	11	1.5
		Military	15	14	14	14	6	5	HCPA	100	AR8	7	12	10	42	-12	-2	2	4	6	7	8	9	11	12	2.2
201-204	Tourist	Civilian	10	10	10	10	1	1	Flex	6	AP5-8	5	7	5	10	-11	-4	-3	-2	-1	0					.8
		Civilian	10	10	10	10	1	1	Flex	10	AP7-8	5	9	5	15	-9	-2	-1	0	1	2	3				1.0
		Civilian	10	10	10	10	2	2	Flex	10	FMPX8	5	9	5	15	-11	-2	1	3	4	5	6				1.0
		Bodyguard	16	14	16	16	3	4	Flex	10	FMPX8	8	14	11	64	-6	3	6	8	9	10	11				1.5
205-220	Bondsmen	Refugees	10	10	10	10	1	1	None	-	AP5-8	6	5	5	5	-13	-6	-5	-4	-3	-2					.5
		Refugees	10	10	10	10	1	1	None	-	AP6-8	6	7	6	10	-11	-5	-3	-2	-1	0					.7
		Refugees	10	10	10	10	2	2	None	-	X7MP1	6	7	6	10	-11	-4	-3	-2							.7
		Refugees	10	10	10	10	3	2	None	-	X7MP1	6	9	6	15	-9	-2	-1	0							.9
221-260	Bondsmen	Rogues	12	10	12	10	1	1	None	-	AP5-8	6	7	6	12	-11	-4	-3	-2	-1	0					.7
		Rogues	12	10	12	10	2	1	None	-	X7MP1	6	9	6	18	-9	-2	-1	0							.9
		Rogues	12	10	12	10	3	2	None	-	X7MP1	6	9	6	18	-9	-2	-1	0							.9
		Rogues	12	10	12	10	6	3	Flex	10	SAR8	6	10	6	24	-12	-2	1	3	4	5	6	7	9	10	1.1

Troops and Enemies Description Table

			Characteristics													Aim Time ALM			Aim Time in AC							
Type	Former Affiliation		STR	INT	WIL	AGI	Pursuit Skill	Espion Skill	Armor	PF	Weapon	MS	SAL	CA	KV	1	2	3	4	5	6	7	8	10	12	Exp
261-341	Bondsmen	Newlords	12	10	12	10	2	1	None	-	AP5-8	6	7	6	12	-11	-4	-3	-2	-1	0					.7
		Newlords	12	10	12	10	3	1	None	-	X7MP1	6	9	6	18	-9	-2	-1	0							.9
		Newlords	12	10	12	10	4	2	Flex	10	SMP8	5	9	5	18	-11	-2	1	3	4	5	6				1.0
		Newlords	12	10	12	10	7	4	CS L1	16	SAR8	4	10	4	24	-12	-2	1	3	4	5	6	7	9	10	1.2
342-364	Bondsmen	Newlords	12	10	12	10	3	2	Flex	10	X7MP1	5	9	5	18	-9	-2	-1	0							1.0
		Newlords	12	10	12	10	4	3	Flex	10	SMP8	5	9	5	18	-11	-2	1	3	4	5	6				1.0
		Newlords	12	10	12	10	6	4	CS L1	16	AR8L	4	10	4	24	-12	-2	1	3	4	5	6	7	8		1.2
		Newlords	12	10	12	10	8	5	CS L1	16	AR8	4	10	4	24	-14	-4	0	2	4	5	6	7	9	10	1.2
365-568	Vissers	Bondsmen	12	10	14	10	2	1	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		Bondsmen	12	10	14	10	3	2	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		LC Law Enf	12	10	14	10	4	3	CS L1	16	AR8L	4	10	4	28	-12	-2	1	3	4	5	6	7	8		1.2
		LC Military	12	10	14	10	6	4	CS L1	16	AR8	4	10	4	28	-14	-4	0	2	4	5	6	7	9	10	1.2
569-796	Vissers	LC Civilian	12	10	14	10	1	1	None	-	X7MP1	6	7	6	14	-11	-4	-3	-2							.7
		LC Civilian	12	10	14	10	2	1	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		LC Law Enf	12	10	14	10	4	2	Flex	10	SMP8	5	9	5	21	-11	-2	1	3	4	5	6				1.0
		LC Military	12	10	14	10	5	3	CS L1	16	SAR8	4	10	4	28	-12	-2	1	3	4	5	6	7	9	10	1.2
797-812	Vissers	SC Civilian	12	10	14	10	2	1	None	-	AP5-8	6	7	6	14	-11	-4	-3	-2	-1	0					.7
		SC Civilian	12	10	14	10	2	1	None	-	AP6-8	6	9	6	21	-9	-3	-1	0	1	2					.9
		LC Military	12	12	12	12	5	4	CS L1	16	AR8	4	11	5	30	-13	-3	1	3	5	6	7	8	10	11	1.3
		SF Imperial	13	12	15	13	6	6	CS L1	16	LAR8	4	12	5	45	-9	2	5	8	10	12	14	15	17		1.4
813-890	Vissers	Bondsmen	12	10	14	10	2	1	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		Bondsmen	12	10	14	10	3	2	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		SF Subcon	13	12	13	13	4	3	CS L1	16	LAR7	4	10	5	26	-11	0	3	6	8	10	12	13	15		1.2
		SF Subcon	14	14	14	14	6	4	CS L2	30	LAR8	4	11	5	35	-10	1	4	7	9	11	13	14	16		1.4
891-922	Vissers	Bondsmen	12	10	14	10	2	1	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		Bondsmen	12	10	14	10	3	2	None	-	X7MP1	6	9	6	21	-9	-2	-1	0							.9
		LC Law Enf	12	10	14	10	4	3	CS L1	16	AR8L	4	10	4	28	-12	-2	1	3	4	5	6	7	8		1.2
		SF Trident	13	12	13	13	6	8	CS L1	16	LAR8	4	13	5	46	-8	3	6	9	11	13	15	16	18		1.5
923-982	Vissers	Tourist	10	10	10	10	2	2	Flex	10	FMPX8	5	9	5	15	-11	-2	1	3	4	5	6				1.0
		Bodyguard	16	14	16	16	3	4	Flex	10	FMPX8	8	14	11	64	-6	3	6	8	9	10	11				1.5
		Surrogt Civ	12	10	10	10	2	2	CS L1	16	SMP8	4	9	4	15	-11	-2	1	3	4	5	6				1.1
		Surrogt SF	15	12	12	15	7	4	CS L3	40	LAR7	5	10	6	24	-11	0	3	6	8	10	12	13	15		1.4
983-988	Slozek		16	14	16	16	10	8	CS L1	16	LAR8	6	14	8	64	-7	4	7	10	12	14	16	17	19		1.6
989-998	Strak		13	8	10	10	2	1	None	-	X7MP1	6	7	6	10	-11	-4	-3	-2							.7
999-999	Spectral	Mn Worker	12	-	-	14	5	12	Full	1	LAR8	7	9	8	-	-12	-1	2	5	7	9	11	12	14		1.2
		Mj Worker	14	-	-	14	5	12	Full	2	LAR8	7	9	8	-	-12	-1	2	5	7	9	11	12	14		1.2
		Mn Warrior	16	-	-	16	10	12	Full	2	LAR8	9	12	12	-	-9	2	5	8	10	12	14	15	17		1.5
		Mj Warrior	18	-	-	16	12	15	Full	3	LAR8	10	15	14	-	-6	5	8	11	13	15	17	18	20		1.8
	Larden		18	8	16	12	4	4	Full	1	LMP8	6	9	6	120	-10	0	3	6	8	9	11				.9
	Varsha		6	10	10	12	1	1	None	-	AP5-8	5	5	4	5	-13	-6	-5	-4	-3	-2					.5

Field Encounter Table

11A

Roll	1		2		Encounter Magnitude Roll 3		4		5	
00-04	Dominant	8	Dominant	8	Dominant	8	Dominant	8	Dominant	7
05-09	Dominant	7	Dominant	7	Dominant	7	Dominant	7	Dominant	6
10-14	Dominant	6	Dominant	6	Dominant	6	Dominant	6	Dominant	6
15-19	Dominant	5	Dominant	5	Dominant	5	Dominant	5	Dominant	5
20-24	Dominant	5	Dominant	5	Dominant	5	Dominant	4	Dominant	4
25-29	Dominant	4	Dominant	4	Dominant	4	Dominant	3	Dominant	3
30-34	Dominant	3	Dominant	2	Dominant	2	Dominant	1	Meeting	8
35-39	Meeting	7	Meeting	7	Meeting	7	Meeting	6	Meeting	6
40-44	Meeting	6	Meeting	5	Meeting	5	Meeting	4	Meeting	3
45-49	Facility 1	Water Pumping	Facility 1	Theater Hall	Facility 1	Theater Hall	Facility 1	Theater Hall	Facility 1	Accommodations
50-54	Facility 1	Accommodations	Facility 1	Accommodations	Facility 1	Accommodations	Facility 1	Restaurant	Facility 1	Restaurant
55-59	Facility 1	Restaurant	Facility 1	Restaurant	Facility 1	Resort, Spa	Facility 1	Resort	Facility 1	Resort
60-64	Facility 1	Resort	Facility 1	Medical Bondsmn	Facility 2	Vehicle Repair	Facility 2	Boat Yard	Facility 1	Hunting Lodge
65-69	Warehouse	Construction	Warehouse	Metal Supply	Warehouse	Appliances	Warehouse	Clothing	Item	Civilian Car
70-74	Area	Agricultural	Area	Agricultural	Area	Agricultural	Area	Fishing	Area	Grazing
75-76	Dominant	10	Dominant	10	Dominant	9	Dominant	9	Dominant	9
77-78	Dominant	9	Dominant	8	Dominant	8	Meeting	10	Meeting	10
79-80	Meeting	9	Meeting	9	Meeting	9	Meeting	9	Meeting	8
81-82	Meeting	8	Meeting	2	Meeting	2	Meeting	1	Equipment	Class 3
83-84	Equipment	Class 3	Equipment	Class 4	Equipment	Class 4	Action	Entry	Action	Entry
85-86	Armory	X7MP1	Armory	Arms Class 3	Armory	Arms Class 4	Armory	Arms Class 2	Facility 2	Lght Manufact
87-88	Facility 2	Light Manufact	Facility 3	Heavy Manufact	Facility 4	Pwr Relay Rep	Facility 1	Power Relay Stn	Facility 2	ORCA Station
89-90	Facility 2	Aircraft	Facility 4	Grav Veh Hanger	Facility 2	Gliders	Warehouse	Elect Supply	Warehouse	Medical Supply
91-92	Armory	Arms Class 1	Warehouse	Expend Pwr Pcks	Warehouse	Expend Pwr Pcks	Item	Ground Car	Item	Port Power Rec
93-94	Item	Ground Truck	Item	All Terr Truck	Item	Ground Car	Facility 1	Medical Landcst	Item	All Terr Veh
95-95	Dominant	10	Dominant	9	Dominant	8	Meeting	10	Meeting	9
96-96	Meeting	8	Equipment	Class 5	Equipment	Class 6	Facility 3	Raw Mat Process	Facility 2	Gliders
97-97	Facility 4	Spaceport	Facility 2	Mining	Armory	Arms Class 5	Warehouse	Ground Cars	Item	All Terr Truck
98-98	Item	Ground Truck	Item	Hvy CO Equipmnt	Item	All Terrain Veh	Item	All Terrain Veh	Item	ATFV
99-99	Item	Grav Carrier	Item	Grav APC	Special		Special		Facility 2	Chemical

Facility & Warehouse Size

11B

Number of Sixes Rolled	Warehouse Size	Facility Size # (Level Tools)
0	Small Local Warehouse	1-2 (II)
1	Medium Local Warehouse	1 (III), 4 (II)
2	Large Major Warehouse	3 (III), 10 (II)
3	Large Regional Warehouse	1 (IV), 5 (III), 12 (II)

Facility State of Repair

11C

The condition of Facilities within communities is found in Section 5.9. For those found in the field, cross-index the Facility # with a 00-99 roll on the right table to find the Spectral Bombardment (SB) value. The SB and Table 12F determine the Facility's condition using Section 5.9.

Note: Facilities capable of making high-tech equipment are found only in communities of Table 13.

Roll	Facility # 1	2	3	4
00-40	-	1	2	5
41-70	-	1	2	5
71-90	-	1	1	5
91-99	1	-	1	5

Mission Assignment Table **12A**

Roll	Duty Assignment Line	Crack	Elite
00-39	-	-	-
40-59	-	Mission 3	-
60-79	-	Mission 3	Mission 4
80-84	Mission 1	Mission 4	Mission 5
85-89	Mission 1	Mission 5	Mission 6
90-94	Mission 2	Mission 6	Mission 7
95-96	Mission 3	Mission 7	Mission 8
97-98	Mission 4	Mission 8	Mission 9
99-99	Mission 5	Mission 9	Mission 10

Mission Type Table **12B**

Roll	Mission Type
00-04	Tactical Assault
05-10	Rear Guard Action (Holding)
11-14	Rear Guard Action (Defensive)
15-34	Disruption
35-64	Recon
65-84	Advisory
85-89	Guerrilla Operations
90-99	Noncombat

Encounter Odds **12C**

Roll	Risk Level 1	2	3	4	5	6	7	8	9	10
00-11	.5/1	.5/1	.5/1	.5/1	.5/2	1/2	1/3	1/3	1/3	1/4
12-23	.5/1	.5/1	.5/1	1/1	1/2	1/2	1/3	1/3	1/3	1/4
24-29	.5/2	.5/2	.5/2	.5/2	1/1	1/2	1/2	1/3	1/4	1/4
30-41	.5/1	1/1	1/1	1/2	1/2	1/3	1/4	1/4	1/4	2/3
42-53	1/1	1/1	1/1	1/2	1/2	1/3	1/4	2/3	2/3	2/4
54-59	1/1	1/1	1/2	1/3	1/4	1/4	2/3	2/3	2/4	2/4
60-67	1/1	1/1	1/2	1/3	1/4	1/4	2/3	2/4	2/4	2/4
68-75	1/1	1/2	1/2	1/4	1/4	2/3	2/3	2/4	2/4	3/3
76-79	1/1	1/2	1/3	1/4	2/3	2/3	2/4	2/4	2/4	3/3
80-83	1/1	1/3	2/2	2/2	2/3	2/3	2/4	3/3	3/3	3/4
84-87	1/2	1/3	2/2	2/3	2/3	2/4	3/3	3/3	3/4	3/4
88-89	2/3	2/3	2/3	2/3	2/4	2/4	3/3	3/3	3/4	3/4
90-93	2/3	2/3	2/3	2/4	2/4	3/3	3/3	3/4	3/4	3/4
94-95	2/3	2/4	2/4	2/4	3/3	3/3	3/4	3/4	4/3	4/4
96-97	2/1	2/1	2/2	3/1	3/2	3/3	4/2	4/3	4/3	4/3
98-99	2/2	2/2	2/3	3/2	3/3	3/4	4/3	4/4	4/4	4/4

Primary Targets **12D**

Imperium
- Deep Space Comm & Tracking
- Imperial Guard Temp Base
- Power Relay Station
- Security Agency Intell. Ctr
- Spaceport
- Starmarine Bases 27th Reg.

Trident
- ORCA Component Parts Lab
- ORCA Engineering & Design
- ORCA Laboratories & Test
- ORCA Mass Teleporter Cntr
- ORCA Sales, Service, Ops
- ORCA Systems Integration
- Power Relay Station
- RMBK Plant
- Spaceports
- Starmarine Bases
- Trident Institute of Tech

Scan
- Advanced Research Labs
- Spaceports

Subcons
- Assembly Facilities using Advanced Tech Equipment (Level IV)
- High-Tech Equipment Manufacturing Plants
- High-Tech Equipment Service and Repair Centers
- High-Tech Parts Manufacturing Facilities
- High-Tech Processing Plants
- Power Generator Manufacturing and Maintenance
- Power Receiver Manufacturing and Repair
- Power Relay Stations
- Power Relay Station Manufacturing and Repair
- Spaceports

Landcaste
- Law Enforcement Centers
- Landcaste Military Bases
- Power Relay Stations

Bondsmen
- Chemical Processing Plants
- Electronic Parts Manufacturing Facilities
- Industry using or Manufacturing Heavy Equipment
- Industry using or Manufacturing Precision Parts
- Major Manufacturing and Assembly Facilities (Level III)
- Metal Foundaries
- Power Relay Stations
- Raw Material Processing
- Refining Plants
- Tooling Industry

Surrogates
- Spaceports

Secondary Targets **12E**

Amusement & Entertainment
Banks & Safe Deposit Cntr
Communications Center
Consumer Retail Outlets
Consumer Service Centers
*Detention Center
*Food Supply Outlets
*Food Processing Plant
Ground Vehicle Service Cntr
Libraries
Medical Facilities
*Light Construction Industry
*Light Manufacturing Fac.
*Paper Products Industry
ORCA Information Center
Restaurants
Schools
*Textiles Industry

* Bondsmen Communities Only

Primary Target Survival Chance **12F**

Roll	SB Value 1	2	3	4	5
0	10	06	04	03	03
1	09	05	04	03	03
2	08	05	03	03	02
3	07	04	03	03	02
4	06	04	03	02	
5	05	03	02		
6	04	03	02		
7	03	02			
8	02		Destroyed		
9					

Secondary Target Survival Chance **12G**

Roll	SB Value 1	2	3	4	5
0	77	52	39	31	26
1	73	48	36	28	24
2	69	44	32	26	21
3	63	40	29	23	19
4	57	35	25	20	16
5	50	30	21	17	14
6	42	24	17	13	11
7	32	18	13	10	08
8	21	12	08	06	05
9	08	05	03	03	02

Residential Target Survival Chance **12H**

Roll	SB Value 1	2	3	4	5
0	95	77	62	52	54
1	93	73	58	48	41
2	90	69	53	44	37
3	87	63	49	40	33
4	82	57	43	35	29
5	75	50	47	30	25
6	66	42	31	24	20
7	54	32	23	18	15
8	37	21	15	12	10
9	15	08	06	05	04

SB Value from Table 13

Rhand's Communities and Installations

Community	#	Ini Pop	SB	Vir Att	Indus Level	TL	Self Suff	% Armed Arms Class
Imperial								
Guard Landing Zone	1		5	No	None	18	No	
Imperial Guard		Evc						-
Field Support		280						100% - 4
27th Company	3		5	No	Light	18	No	
Starmarines		Evc						-
Field Support		200						100% - 4
Civilians		15K						10% - 1
Security Staff		1200						100% - 2
Trident								
1 & 2nd Mech Compny	6		5	No	Light	18	No	
Starmarines		77						100% - 5
Field Support		230						100% - 4
Ground Support		1000						100% - 4
Civilians		7300						15% - 1
8 & 9th Inf Company	6		5	No	Light	18	No	
Starmarines		160						100% - 5
Ground Support		2000						100% - 4
Civilians		9000						20% - 1
Regional Law Enf	8		-	No	None	18	No	
Law Enf Agents		40						100% - 4
Support Staff		1000						100% - 2
Civilian Community	12		2	Yes	None	18	No	
Trident SF Inf		64						100% - 5
Trident Law Agt		70						100% - 4
Civilians		50K						16% - 1
Bondsmen		200K						6% - 1
RMBK Plant	1		5	No	High	18	No	
Trident Mech Inf		33						100% - 5
Trident Law Agnt		80						100% - 4
Lab Staff		6000						20% - 2
Scan								
Medical Community	2		-	No	Med	18	Mod	
Scan SF Mech Inf		297						100% - 5
Field Support		1000						100% - 4
Ground Support		1400						100% - 4
Medical Staff		3000						
Civilians		53K						
Bondsmen		250K						
Research Plants	3		5	No	High	18	No	
Scan Mech Inf		99						100% - 5
Trident Mech Inf		33						100% - 5
Trident Law Agnt		35						100% - 4
Research Staff		2000						20% - 2
Subcon	150		4	Yes	High	18	No	
Starforce Inf		432						100% - 4
Field Support		600						100% - 3
Security Agents		5K						100% - 2
Business Staff		6000						10% - 1
Civilians		24K						10% - 1
Bondsmen		110K						1% - 1

Community	#	Ini Pop	SB	Vir Att	Indus Level	TL	Self Suff	% Armed Arms Class
Surrogates	8		-	20%	High	15	Yes	
Starforce Infantry		306						100% - 4
Field Support		500						100% - 4
Civilians		6000						60% - 3
Strak		2000						
Varsha		4000						
Landcaste (daylight)	6		2	Yes	Low	18	No	
Landcaste Military		63						100% - 3
Support Personnel		3200						100% - 2
Law Enf Agents		50						100% - 2
Support Personnel		3200						100% - 2
Civilians		53K						20% - 1
Bondsmen		90K						20% - 1
Landcaste (night)	6		2	Yes	Low	18	No	
Landcaste Military		567						100% - 3
Support Personnel		3700						100% - 2
Law Enf Agents		2000						100% - 2
Support Personnel		3800						100% - 2
Civilians		53K						20% - 1
Bondsmen		9000						20% - 1
Bondsmen (daylight)	23		4	Yes	High	14	Mod	
Landcaste Military		84						100% - 3
Support Personnel		84						100% - 1
Landcaste Law Agnt		290						100% - 2
Support Personnel		100						100% - 1
Landcaste Managers		500						100% - 1
Bondsmen		190K						20% - 1
Bondsmen (night)	25		4	Yes	High	14	Mod	
Landcaste Military		42						100% - 3
Support Personnel		42						100% - 1
Landcaste Law Agnt		150						100% - 2
Support Personnel		50						100% - 1
Landcaste Managers		100						100% - 1
Bondsmen		270K						8% - 1
Resort (daylight)	39		-	No	None	18	No	
Landcaste Law Agnt		20						100% - 1
Landcaste Managers		10						100% - 1
Tourists		600						10% - 1
Bodyguards		100						100% - 2
Servants (toursts)		900						
Bondsmen		400						
Resort (night)	53		-	No	None	18	No	
Landcaste Law Agnt		4						100% - 1
Landcaste Managers		2						100% - 1
Tourists		500						10% - 1
Bodyguards		80						100% - 2
Servants (toursts)		700						
Bondsmen		40						

Range 14A

hexes (2yd)	ALM
1	33
2	28
3	25
4	23
5	22
6	20
7	19
8	18
9	17
11	16
12	15
14	14
16	13
19	12
22	11
25	10
30	9
35	8
40	7
45	6
50	5
55	4
65	3
75	2
85	1
100	0
115	- 1
130	- 2
150	- 3
170	- 4
200	- 5
230	- 6
250	- 7
300	- 8
400	-10
500	-12
700	-14
900	-16

Stance / Situation 14B

ALM	
0	Standing
+ 3	Kneeling
+ 6	Prone
+ 4	Braced on Horizontal Rest
+ 1	Using Sling for Support
- 6	Firing From the Hip
- 7	Firing Rifle one Hand
- 4	Firing Pistol one Hand
- 4	Folding Stock Not Used
- 2	Deployed Bipod Not Braced
+ 3	Bipod Mounted Weapon
+ 5	Tripod Mounted Weapon
+11	Turret Mounted Weapon
+ 3	Pistol with Shoulder Stock

Moving Target / Shooter 14C

	Speed	ALM
	1	- 6
Moving	2	- 7
Target	3	- 8
	4	- 8
Or	5	- 8
	6	-10
Shooter	7 to 9	-11
Moving	10 to 12	-13
On A	13 to 20	-15
Vehicle	21 to 30	-19
	31 to 40	-21
	1	- 8
Shooter	2	-15
Moving	3	-20
Under His	4	-22
Own Power	5	-23
	Over 5	-24

Target Size Modifiers 14D

	Target Size	Auto ELE
Look Over / Around Cover	- 4	- 3
Fire Over / Around Cover	0	+ 2
Standing Exposed	+ 7	+14
Kneeling Exposed	+ 6	+11
Prone Exposed	+ 2	+ 2
Running	+ 8	+14
Low Crouch	+ 7	+11
Hands and Knees	+ 6	+ 8
Belly Crawl	+ 2	+ 3
Low Prone	+ 1	0
Head	- 3	0
Body	+ 5	+ 8
Arm	0	+ 8
Leg	+ 2	+ 8
Legs	+ 4	+ 8

Target Size ALM Table 14E

Size	ALM	Size	ALM
.1	-15	4.2	+12
.2	-10	4.8	+13
.3	- 7	5.5	+14
.4	- 5	6.3	+15
.5	- 3	7.3	+16
.6	- 2	8.4	+17
.7	- 1	9.7	+18
.8	0	11.1	+19
.9	+ 1	12.8	+20
1.0	+ 2	14.7	+21
1.2	+ 3	16.9	+22
1.4	+ 4	19.4	+23
1.6	+ 5	22.3	+24
1.8	+ 6	25.7	+25
2.1	+ 7	29.5	+26
2.4	+ 8	34.0	+27
2.7	+ 9	39.0	+28
3.2	+10	44.9	+29
3.6	+11	51.6	+30

Odds of Hitting 14F

EAL	Single Shot	Burst Elev.
28	99	99
27	98	98
26	96	98
25	94	97
24	90	95
23	86	92
22	80	90
21	74	86
20	67	82
19	60	77
18	53	73
17	46	68
16	39	62
15	33	57
14	27	52
13	22	47
12	18	43
11	15	38
10	12	34
9	09	31
8	07	27
7	06	24
6	05	21
5	04	19
4	03	17
3	02	15
2	02	13
1	01	11
0	01	10
-1	01	09
-2	00	08
-3		07
-4		06
-6		04
-8		03
-10		02
-15		01
-20		00

Automatic Weapon Hit Chance 14G

Arc	Rate Of Fire (ROF)								
Fire	4	5	6	7	8	9	10	12	18
.2	*3	*3	*4	*5	*5	*6	*7	*8	*12
.3	*2	*2	*3	*3	*4	*4	*5	*5	*8
.4	*1	*2	*2	*2	*3	*3	*3	*4	*6
.5	*1	*1	*2	*2	*2	*2	*3	*3	*5
.6	89	*1	*1	*2	*2	*2	*2	*3	*4
.7	78	97	*1	*1	*2	*2	*2	*2	*4
.8	67	86	*1	*1	*1	*2	*2	*2	*3
.9	58	73	88	*1	*1	*1	*1	*2	*3
1	51	64	77	89	*1	*1	*1	*2	*2
2	25	31	38	44	50	57	63	76	*1
3	16	20	24	29	33	37	41	50	75
4	12	15	18	21	25	28	31	37	56
5	9	11	13	16	18	21	23	28	42
6	7	10	12	14	16	18	20	24	37
7	6	8	10	12	14	15	17	21	32
8	5	7	9	10	12	13	15	18	28
9	5	6	7	9	10	11	13	16	24
10	4	5	6	7	9	10	11	13	21
11	3	4	5	6	7	8	9	12	18
12	3	4	4	5	6	7	8	10	15
13	2	3	4	5	5	6	7	8	13

Blast Modifiers 14H

Target is:

1	In the Open
3	In an Open Trench w Blast
5	In a Small Room with Blast
10	Underwater with Blast
.25	Target Prone
.25	Behind Partial Cover
.10	Target in Combat Suit
.01	Target in Power Armor
.01	Behind Solid Cover
0	Isolated from Blast

Physical Damage (PD) Versus Weapon Damage Class (DC) and Effective Impact Damage (EID)

H = 100 K = 1,000 T = 10,000 X = 100,000 M = 1,000,000

				DC = 1							DC = 2							DC = 3							DC = 4							DC = 5						
				EID							EID							EID							EID							EID						
Look	Fire	Open	Hit Location	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12
00-11	00-02	00-00	Head Glance	5	7	7	7	7	7	7	16	24	24	24	24	24	24	57	83	83	83	83	83	83	1H	2H	2H	2H	2H	2H	2H	2H	3H	3H	3H	3H	3H	3H
12-77	03-17	01-02	Forehead	1K	2K	2K	2K	2K	2K	2K	4K	6K	8K	8K	8K	8K	8K	1T	2T	3T	3T	3T	3T	3T	3T	5T	6T	6T	6T	6T	6T	5T	8T	9T	9T	9T	9T	9T
78-99	18-22	03-03	Eye - Nose	1K	3K	3K	3K	3K	3K	3K	4K	1T	1T	1T	1T	1T	1T	1T	4T	4T	4T	4T	4T	4T	3T	8T	8T	8T	8T	8T	8T	5T	1X	1X	1X	1X	1X	1X
	23-38	04-05	Mouth	3	45	2H	2H	2H	2H	2H	11	2H	8H	8H	8H	8H	8H	37	5H	3K	3K	3K	3K	3K	77	1K	6K	6K	6K	6K	6K	1H	2K	9K	1T	1T	1T	1T
	39-51	06-07	Shoulder Glance	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	5	5	5	5	5	5	5	6	6	6	6	6	6	6
	52-60	08-08	Shoulder Socket	1	1	1	1	2	5	21	2	2	4	5	7	18	72	5	7	13	16	23	62	3H	11	15	26	33	47	1H	5H	18	25	43	53	77	2H	8H
	61-64	09-09	Shoulder	2	4	4	4	4	4	4	7	14	14	14	14	14	14	23	49	49	49	49	49	49	48	1H	1H	1H	1H	1H	1H	80	2H	2H	2H	2H	2H	2H
	65-69	10-10	Arm Glance	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	5	5	5	5	5	5	5	6	6	6	6	6	6	6
	70-76	11-11	Arm Flesh	1	1	1	1	1	1	1	3	3	3	3	3	3	3	9	9	9	9	9	9	9	18	18	18	18	18	18	18	31	31	31	31	31	31	31
	77-80	12-12	Arm Bone	1	1	1	4	7	7	7	1	3	5	14	23	23	23	5	9	16	49	81	81	81	10	20	34	1H	1H	1H	1H	17	33	57	1H	1H	1H	1H
	81-83	13-13	Forearm Flesh	1	1	1	1	1	1	1	2	2	2	2	2	2	2	6	6	6	6	6	6	6	12	12	12	12	12	12	12	20	20	20	20	20	20	20
	84-92	14-15	Forearm Bone	1	1	6	6	6	6	6	1	2	20	20	20	20	20	4	8	60	60	60	60	60	8	17	60	60	60	60	60	13	29	60	60	60	60	60
	93-99	16-16	Hand	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4	4	4	8	8	8	8	8	8	8	14	14	14	14	14	14	14
		17-19	Torso Glance	1	1	1	1	1	1	1	3	3	3	3	3	3	3	5	5	5	5	5	5	5	7	7	7	7	7	7	7	9	9	9	9	9	9	9
		20-21	Base of Neck	3	7	2H	3H	3H	3H	3H	12	24	8H	9H	9H	9H	9H	40	83	3K	3K	3K	3K	3K	83	2H	6K	6K	6K	6K	6K	1H	3H	1T	1T	1T	1T	1T
		22-22	Lung-Rib	1	71	79	79	79	79	79	1	87	98	98	98	98	98	2	1H	1H	1H	1H	1H	1H	2	2H	2H	2H	2H	2H	2H	3	2H	2H	2H	2H	2H	2H
		23-24	Lung	40	51	51	51	51	51	51	50	62	62	62	62	62	62	71	89	89	89	89	89	89	96	1H	1H	1H	1H	1H	1H	1H	2H	2H	2H	2H	2H	2H
		25-25	Heart	2K	3K	4K	4K	4K	4K	4K	8K	1T	1T	1T	1T	1T	1T	3T	3T	5T	5T	5T	5T	5T	6T	7T	1X	1X	1X	1X	1X	1X	1X	2X	2X	2X	2X	2X
		26-26	Liver-Rib	6	42	49	49	49	49	49	21	1H	2H	2H	2H	2H	2H	75	5H	6H	6H	6H	6H	6H	2H	1K	1K	1K	1K	1K	1K	3H	2K	2K	2K	2K	2K	2K
		27-27	Liver	27	35	35	35	35	35	35	94	1H	1H	1H	1H	1H	1H	3H	4H	4H	4H	4H	4H	4H	7H	9H	9H	9H	9H	9H	9H	1K	1K	1K	1K	1K	1K	1K
		28-28	Stomach-Rib	4	27	38	38	38	38	38	6	37	53	53	53	53	53	11	63	89	89	89	89	89	16	95	1H	1H	1H	1H	1H	22	1H	2H	2H	2H	2H	2H
		29-29	Stomach	17	28	28	28	28	28	28	24	40	40	40	40	40	40	41	67	67	67	67	67	67	62	1H	1H	1H	1H	1H	1H	87	1H	1H	1H	1H	1H	1H
		30-30	Stomach-Spleen	2	41	50	50	50	50	50	6	1H	1H	1H	1H	1H	1H	19	3H	4H	4H	4H	4H	4H	37	6H	8H	8H	8H	8H	8H	60	1K	1K	1K	1K	1K	1K
		31-31	Stomach-Kidney	47	58	58	58	58	58	58	1H	2H	2H	2H	2H	2H	2H	4H	5H	5H	5H	5H	5H	5H	7H	9H	9H	9H	9H	9H	9H	1K	1K	1K	1K	1K	1K	1K
		32-33	Liver-Kidney	44	53	53	53	53	53	53	2H	2H	2H	2H	2H	2H	2H	5H	6H	6H	6H	6H	6H	6H	1K	1K	1K	1K	1K	1K	1K	2K	2K	2K	2K	2K	2K	2K
		34-35	Liver-Spine	12	2H	3H	3H	3H	3H	3H	41	7H	9H	1K	1K	1K	1K	1H	2K	3K	3K	3K	3K	3K	3H	5K	7K	7K	7K	7K	7K	5H	9K	1T	1T	1T	1T	1T
		36-39	Intestines	17	21	21	21	21	21	21	23	28	28	28	28	28	28	37	45	45	45	45	45	45	53	66	66	66	66	66	66	73	89	89	89	89	89	89
		40-42	Spine	3	2H	2H	3H	3H	3H	3H	11	6H	8H	8H	8H	8H	8H	35	2K	3K	3K	3K	3K	3K	71	4K	5K	5K	5K	5K	5K	1H	7K	9K	9K	9K	9K	9K
		43-53	Pelvis	10	19	21	21	21	21	21	18	32	35	35	35	35	35	37	67	73	73	73	73	73	63	1H	1H	1H	1H	1H	1H	94	2H	2H	2H	2H	2H	2H
		54-56	Hip Socket	1	1	1	1	2	6	7	1	2	3	4	5	22	24	4	6	12	15	19	78	83	9	13	24	31	38	2H	2H	15	22	41	52	64	3H	3H
		57-60	Leg Glance	1	1	1	1	1	1	1	3	3	3	3	3	3	3	5	5	5	5	5	5	5	7	7	7	7	7	7	7	9	9	9	9	9	9	9
		61-77	Thigh Flesh	2	3	3	3	3	3	3	6	12	12	12	12	12	12	22	42	42	42	42	42	42	46	88	88	88	88	88	88	78	1H	1H	1H	1H	1H	1H
		78-82	Thigh Bone	1	1	1	2	5	5	16	3	4	5	7	16	17	57	10	14	18	23	55	60	2H	21	29	38	48	1H	1H	4H	35	48	63	80	2H	2H	7H
		83-94	Shin	1	1	1	1	2	3	14	1	1	2	3	8	9	47	2	4	7	10	29	32	2H	4	9	14	21	60	67	2H	7	14	24	35	1H	1H	2H
		95-99	Ankle-Foot	1	1	1	1	1	1	1	1	2	3	3	3	3	3	3	7	12	12	12	12	12	6	14	25	25	25	25	25	9	24	42	42	42	42	42

Physical Damage (PD) Versus Weapon Damage Class (DC) and Effective Impact Damage (EID)

H = 100 K = 1,000 T = 10,000 X = 100,000 M = 1,000,000

				DC = 6							DC = 7							DC = 8							DC = 9							DC = 10						
							EID							EID							EID							EID							EID			
Look	Fire	Open	Hit Location	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12	1	2	3	4	5	8	12
00-11	00-02	00-00	Head Glance	3H	4H	4H	4H	4H	4H	4H	7H	1K	1K	1K	1K	1K	1K	1K	2K	2K	2K	2K	2K	2K	3K	4K	4K	4K	4K	4K	4K	6K	8K	8K	8K	8K	8K	8K
12-77	03-17	01-02	Forehead	7T	1X	1X	1X	1X	1X	1X	2X	3X	3X	3X	3X	3X	3X	3X	5X	6X	6X	6X	6X	6X	5X	8X	1M	1M	1M	1M	1M	7X	1M	1M	1M	1M	1M	1M
78-99	18-22	03-03	Eye - Nose	8T	2X	2X	2X	2X	2X	2X	2X	4X	4X	4X	4X	4X	4X	3X	8X	8X	8X	8X	8X	8X	6X	1M	1M	1M	1M	1M	1M	1M	2M	2M	2M	2M	2M	2M
	23-38	04-05	Mouth	2H	3K	1T	1T	1T	1T	1T	4H	7K	3T	3T	3T	3T	3T	8H	1T	6T	6T	6T	6T	6T	1K	2T	1X	1X	1X	1X	1X	2K	4T	2X	2X	2X	2X	2X
	39-51	06-07	Shoulder Glance	7	7	7	7	7	7	7	11	11	11	11	11	11	11	15	15	15	15	15	15	15	22	22	22	22	22	22	22	32	32	32	32	32	32	32
	52-60	08-08	Shoulder Socket	23	32	55	68	98	3H	1K	35	49	84	1H	2H	4H	1K	47	67	1H	1H	2H	6H	1K	74	1H	2H	2H	3H	9H	1K	1H	2H	3H	4H	5H	1K	1K
	61-64	09-09	Shoulder	1H	3H	3H	3H	3H	3H	3H	3H	6H	6H	6H	6H	6H	6H	4H	9H	9H	9H	9H	9H	9H	8H	2K	2K	2K	2K	2K	2K	2K	3K	3K	3K	3K	3K	3K
	65-69	10-10	Arm Glance	7	7	7	7	7	7	7	11	11	11	11	11	11	11	15	15	15	15	15	15	15	22	22	22	22	22	22	22	32	32	32	32	32	32	32
	70-76	11-11	Arm Flesh	46	46	46	46	46	46	46	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H
	77-80	12-12	Arm Bone	26	49	85	1H	1H	1H	1H	60	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H	1H
	81-83	13-13	Forearm Flesh	31	31	31	31	31	31	31	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	84-92	14-15	Forearm Bone	20	43	60	60	60	60	60	47	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	93-99	16-16	Hand	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		17-19	Torso Glance	11	11	11	11	11	11	11	16	16	16	16	16	16	16	22	22	22	22	22	22	22	32	32	32	32	32	32	32	47	47	47	47	47	47	47
		20-21	Base of Neck	2H	4H	2T	2T	2T	2T	2T	5H	1K	4T	4T	4T	4T	4T	9H	2K	6T	7T	7T	7T	7T	2K	4K	1X	1X	1X	1X	1X	4K	8K	3X	3X	3X	3X	3X
		22-22	Lung-Rib	3	3H	3H	3H	3H	3H	3H	6	5H	5H	5H	5H	5H	5H	9	7H	8H	8H	8H	8H	8H	17	1K	1K	1K	1K	1K	1K	32	3K	3K	3K	3K	3K	3K
		23-24	Lung	2H	2H	2H	2H	2H	2H	2H	3H	3H	3H	3H	3H	3H	3H	4H	5H	5H	5H	5H	5H	5H	7H	9H	9H	9H	9H	9H	9H	1K	2K	2K	2K	2K	2K	2K
		25-25	Heart	2X	2X	3X	3X	3X	3X	3X	4X	4X	6X	6X	6X	6X	6X	6X	7X	1M	1M	1M	1M	1M	1M	2M	2M	2M	2M	2M	2M	3M	3M	5M	5M	5M	5M	5M
		26-26	Liver-Rib	4H	3K	3K	3K	3K	3K	3K	9H	6K	7K	7K	7K	7K	7K	2K	1T	1T	1T	1T	1T	1T	3K	2T	3T	3T	3T	3T	3T	6K	4T	5T	5T	5T	5T	5T
		27-27	Liver	2K	2K	2K	2K	2K	2K	2K	4K	5K	5K	5K	5K	5K	5K	7K	9K	9K	9K	9K	9K	9K	1T	2T	2T	2T	2T	2T	2T	3T	3T	3T	3T	3T	3T	3T
		28-28	Stomach-Rib	29	2H	2H	2H	2H	2H	2H	56	3H	5H	5H	5H	5H	5H	90	5H	8H	8H	8H	8H	8H	2H	1K	1K	1K	1K	1K	1K	3H	2K	2K	2K	2K	2K	2K
		29-29	Stomach	1H	2H	2H	2H	2H	2H	2H	2H	4H	4H	4H	4H	4H	4H	4H	6H	6H	6H	6H	6H	6H	7H	1K	1K	1K	1K	1K	1K	1K	2K	2K	2K	2K	2K	2K
		30-30	Stomach-Spleen	88	2K	2K	2K	2K	2K	2K	2H	4K	4K	4K	4K	4K	4K	4H	6K	8K	8K	8K	8K	8K	8H	1T	2T	2T	2T	2T	2T	2K	3T	3T	3T	3T	3T	3T
		31-31	Stomach-Kidney	2K	2K	2K	2K	2K	2K	2K	4K	5K	5K	5K	5K	5K	5K	7K	9K	9K	9K	9K	9K	9K	2T	2T	2T	2T	2T	2T	2T	3T	4T	4T	4T	4T	4T	4T
		32-33	Liver-Kidney	3K	3K	3K	3K	3K	3K	3K	6K	8K	8K	8K	8K	8K	8K	1T	1T	1T	1T	1T	1T	1T	3T	3T	3T	3T	3T	3T	3T	5T	7T	7T	7T	7T	7T	7T
		34-35	Liver-Spine	7H	1T	2T	2T	2T	2T	2T	2K	3T	4T	4T	4T	4T	4T	3K	5T	7T	7T	7T	7T	7T	7K	1X	2X	2X	2X	2X	2X	1T	2X	3X	3X	3X	3X	3X
		36-39	Intestines	95	1H	1H	1H	1H	1H	1H	2H	2H	2H	2H	2H	2H	2H	3H	3H	3H	3H	3H	3H	3H	5H	7H	7H	7H	7H	7H	7H	1K	1K	1K	1K	1K	1K	1K
		40-42	Spine	2H	1T	1T	1T	1T	1T	1T	4H	2T	3T	3T	3T	3T	3T	7H	4T	5T	5T	5T	5T	5T	2K	9T	1X	1X	1X	1X	1X	3K	2X	2X	3X	3X	3X	3X
		43-53	Pelvis	1H	2H	3H	3H	3H	3H	3H	3H	5H	5H	5H	5H	5H	5H	5H	8H	9H	9H	9H	9H	9H	1K	2K	2K	2K	2K	2K	2K	2K	4K	4K	4K	4K	4K	4K
		54-56	Hip Socket	22	33	61	78	96	4H	4H	51	76	1H	2H	2H	9H	1K	88	1H	2H	3H	4H	2K	2K	2H	2H	5H	6H	7H	3K	3K	3H	4H	8H	1K	1K	5K	6K
		57-60	Leg Glance	11	11	11	11	11	11	11	16	16	16	16	16	16	16	22	22	22	22	22	22	22	32	32	32	32	32	32	32	47	47	47	47	47	47	47
		61-77	Thigh Flesh	1H	2H	2H	2H	2H	2H	2H	3H	5H	5H	5H	5H	5H	5H	5H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H	6H
		78-82	Thigh Bone	53	72	95	1H	3H	3H	7H	1H	2H	2H	3H	7H	7H	7H	2H	3H	4H	5H	7H	7H	7H	5H	7H	7H	7H	7H	7H	7H	7H	7H	7H	7H	7H	7H	7H
		83-94	Shin	11	22	35	52	2H	2H	2H	26	50	82	1H	2H	2H	2H	45	89	1H	2H	2H	2H	2H	1H	2H	2H	2H	2H	2H	2H	2H	2H	2H	2H	2H	2H	2H
		95-99	Ankle-Foot	14	36	63	63	63	63	63	33	84	95	95	95	95	95	58	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95

Medical Aid and Recovery

16A

		No Aid		First Aid		Aid Station		Field Hospital		Recovery Roll (RR) Trauma Center Technology Level						
DT	HT	CTP	RR	CTP	RR	CTP	RR	CTP	RR	CTP	13	14	15	16	17	18
5	17	79h	94	25d	96											
10	25	75h	89	25d	92	RR = 99										
15	30	72h	85	25d	89											
20	35	68h	81	25d	86	25d	96	RR = 99								
25	38	65h	77	25d	82	25d	95									
30	41	62h	73	25d	79	25d	94									
35	43	59h	69	25d	76	25d	93	25d	97							
40	44	56h	66	25d	73	25d	92	25d	96				RR = 99			
45	46	53h	63	25d	70	25d	91	25d	96							
50	47	51h	60	25d	68	25d	90	25d	95							
60	48	46h	54	25d	63	25d	89	25d	94							
70	50	41h	49	25d	58	25d	87	25d	94							
80	51	37h	44	25d	54	25d	85	25d	92	25d	97					
90	52	34h	40	25d	50	25d	83	25d	91	25d	96					
1H	53	31h	36	25d	46	25d	82	25d	90	25d	96	97				
2H	61	11h	12	23d	21	25d	67	25d	82	25d	92	94	96			
3H	65	4h	04	19d	10	25d	55	25d	74	25d	89	91	94	96		
4H	68	93m	01	16d	04	25d	45	25d	67	25d	85	88	92	95	97	
5H	70	35m	00	13d	02	25d	37	25d	61	25d	82	85	90	94	96	
6H	72	13m	00	10d	01	25d	30	25d	55	25d	79	82	88	93	95	
7H	73	6m	00	8d	00	25d	25	25d	50	25d	76	80	86	92	94	
8H	75	5m	00	7d	00	25d	20	25d	45	25d	73	77	84	91	94	97
9H	76	4m	00	6d	00	25d	16	25d	41	25d	70	75	82	90	93	96
1K	77	90p	00	5d	00	25d	13	25d	37	25d	67	73	80	89	92	96
2K	84	85p	00	15h	00	6d	02	25d	13	25d	45	53	64	79	85	92
3K	88	81p	00	2h	00	21h	00	5d	05	18d	30	38	52	70	79	89
4K	91	76p	00	22m	00	4h	00	18h	02	72h	20	28	41	62	73	85
5K	93	71p	00	6m	00	63m	00	5h	01	21h	13	20	33	55	67	82
6K	95	67p	00	4m	00	36m	00	3h	00	12h	09	15	27	49	62	79
7K	96	62p	00	87p	00	29m	00	2h	00	10h	06	11	21	43	57	76
8K	98	57p	00	75p	00	25m	00	2h	00	8h	04	08	17	39	53	73
9K	99	52p	00	67p	00	22m	00	2h	00	7h	03	06	14	34	49	70
2T	107	1p	00	30p	00	10m	00	50m	00	3h	00	00	01	09	20	45
4T	114	1p	00	15p	00	5m	00	25m	00	2h	00	00	00	01	04	20
6T	118	1p	00	10p	00	3m	00	17m	00	68m	00	00	00	00	01	09
8T	121	1p	00	8p	00	75p	00	13m	00	52m	00	00	00	00	00	04
1X	123	1p	00	6p	00	60p	00	10m	00	40m	00	00	00	00	00	02

Incapacitation Time

16B

PD Total	Random Roll 0	1-2	3-5	6-7	8	9
0	1p	1p	2p	4p	6p	11p
50	4p	15p	29p	47p	73p	4m
100	25p	3m	5m	9m	14m	25m
200	3m	11m	21m	23m	53m	96m
300	10m	33m	63m	2h	3h	5h
450	25m	85m	3h	4h	7h	12h
600	50m	3h	5h	9h	14h	25h
750	2h	6h	11h	19h	29h	53h
1000	5h	17h	32h	53h	82h	6d
1500	13h	46h	86h	6d	9d	17d

Key

16C

PD = Physical Damage points
DT = Damage Total = PD x 10 / HLT
HLT = Health Characteristic
HT = Healing Time in days
CTP = Critical Time Period
RR = Recovery Roll

d = days
h = hours
m = minutes
p = phases

Date	Hospital or Trauma Center	
1831-1889	as First Aid	
1890-1918	as Aid Station	
1919-1945	as Field Hospital	
1946-2000	Tech 13	
2001-2030	Tech 14	
2031-2060	Tech 15	Bondsmen Fac.
2061-2120	Tech 16	
2121-2250	Tech 17	Landcaste Fac.
2251-2345	Tech 18	Scan Facility

Unarmed Hand to Hand Combat 17A

Base Odds	Action	AC	ID
11 - SL	Jab	2	1
9 - SL	Punch	3	1-2
8 - SL	Set Punch	4	2-4
9 - SL	Kick Jab	3	1-3
8 - SL	Kick Punch	5	2-6
7 - SL	Knee Strike	4	1-4
13 - SL	Block		
10 - SL	Dodge		

Armed Hand to Hand Combat 17B

Base Odds	Action
8 - SL	Stabbing Thrust
9 - SL	Cutting Blow
7 - SL	Butt Strike
13 - SL	Block with Parry Device
9 - SL	Dodge

Weapon	WS	WC	IDb	IDs	IDc	R
Knuckles	3.0	+1	(4)	(4)	-	1
Knife	2.8	+2	(4)	(3)	(3)+2	1
Hammer	2.4	0	(4)	(3)	(3)+3	1
Cleaver	2.4	0	(4)	(3)	(3)+3	1
Billyclb	2.5	+1	(4)	(3)	(4)+2	1
Crowbar	2.2	0	(4)	(3)	(6)+2	1
Chain	2.0	+2	-	-	(4)+1	1+
Machette	2.0	0	(4)	(3)	(6)+3	1+
3' Pipe*	2.4	0	(6)	(5)	(9)+5	2
42" 2X4*	2.4	0	(4)	(3)	(8)+4	2+
Axe*	1.5	-3	(4)	(4)	(9)+8	2+

* Two Handed Weapon

Grappling Combat 17C

Base Odds	
9 - SL	Grab
8 - SL	Escape
5 - SL	Escape Pin
7 - SL	Pin

Skill Level Modifiers 17D

N Attackers on 1 Opponent	+N - 1
In Power Armor	+20
Attacker Behind Opponent	+3
Arm Disabled	-8
Leg Disabled	-12
Holding an Object	-2
Surprised, Attack Front	-2
Surprised, Attack Rear	-15

Blunt Impact Damage Table 17E

	Head	Body	Left Arm	Right Arm	Left Leg	Right Leg
Punch - Butt	00-25	26-74	75-91	92-97	98-98	99-99
Kick - Knee	00-03	04-43	44-51	52-57	58-79	80-99
Thrust	00-19	20-64	65-77	78-84	85-92	93-99
Cut	00-34	35-62	63-78	79-86	87-94	95-99

	Head BPF											Body BPF											Arm / Leg BPF										
ID	10	9	8	7	6	5	4	3	2	1	0	10	9	8	7	6	5	4	3	2	1	0	10	9	8	7	6	5	4	3	2	1	0
1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	1
2	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	1	1	1	2	-	-	-	-	-	-	-	-	1	1	1
3	-	-	-	-	-	-	-	-	1	3	4	-	-	-	-	-	-	-	1	2	2	3	-	-	-	-	-	-	-	1	1	1	2
4	-	-	-	-	-	-	-	-	12	25	34	-	-	-	-	-	-	-	1	3	5	6	-	-	-	-	-	-	-	1	2	3	4
5	-	-	-	-	-	-	-	1	41	1H	2H	-	-	-	-	-	-	-	1	5	9	11	-	-	-	-	-	-	-	1	4	6	8
6	-	-	-	-	-	-	-	1	66	2H	4H	-	-	-	-	-	-	-	2	9	15	18	-	-	-	-	-	-	-	2	8	13	15
7	-	-	-	-	-	-	-	1	98	4H	7H	-	-	-	-	-	-	1	2	12	21	27	-	-	-	-	-	-	-	2	10	16	19
8	-	-	-	-	-	-	-	1	1H	5H	1K	-	-	-	-	-	-	1	3	17	30	37	-	-	-	-	-	-	-	3	12	19	23
9	-	-	-	-	-	-	-	1	2H	1K	2K	-	-	-	-	-	1	1	4	23	39	49	-	-	-	-	-	-	-	4	17	26	31
10	-	-	-	-	-	-	-	3	3H	1K	2K	-	-	-	-	-	1	1	5	29	49	61	-	-	-	-	-	-	1	5	23	35	43
11	-	-	-	-	-	-	-	5	4H	2K	3K	-	-	-	-	-	1	1	6	35	60	76	-	-	-	-	-	-	1	6	29	46	56
12	-	-	-	-	-	-	-	9	6H	2K	4K	-	-	-	-	1	1	1	7	45	79	1H	-	-	-	-	-	-	1	7	36	58	72
14	-	-	-	-	-	-	-	40	1K	4K	6K	-	-	-	1	1	1	1	10	81	2H	2H	-	-	-	-	-	1	1	10	56	86	1H
16	-	-	-	-	-	-	-	1H	2K	5K	8K	-	-	-	1	1	1	1	13	1H	2H	3H	-	-	-	-	-	1	1	14	84	1H	2H
18	-	-	-	-	-	-	1	2H	4K	8K	1T	-	-	-	1	1	1	1	17	2H	3H	4H	-	-	-	-	1	1	1	18	1H	2H	2H
20	-	-	-	-	-	1	1	4H	6K	1T	2T	-	-	1	1	1	1	1	23	2H	4H	5H	-	-	-	1	1	1	1	23	1H	2H	3H
22	-	-	-	-	1	1	1	5H	7K	1T	2T	-	1	1	1	1	1	2	30	3H	5H	7H	-	-	-	1	1	1	1	29	2H	3H	3H
24	-	-	-	1	1	1	1	7H	7K	1T	2T	-	1	1	1	1	1	2	39	4H	7H	9H	-	-	1	1	1	1	1	36	2H	3H	4H
26	-	-	-	1	1	1	1	9H	1T	2T	3T	1	1	1	1	1	1	2	48	4H	8H	1K	-	-	1	1	1	1	1	44	2H	4H	5H
28	-	-	-	1	1	1	1	1K	1T	3T	4T	1	1	1	1	1	2	2	59	6H	1K	1K	-	-	1	1	1	1	2	53	3H	5H	6H
30	-	-	-	1	1	1	2	2K	2T	3T	4T	1	1	1	1	1	2	2	72	7H	1K	2K	-	-	1	1	1	1	2	62	3H	6H	7H
35	-	-	1	1	1	1	2	3K	2T	5T	6T	1	1	1	1	2	2	3	1H	1K	2K	3K	-	1	1	1	1	1	2	1H	5H	7H	7H
40	-	1	1	1	1	2	2	5K	3T	6T	8T	1	1	1	2	2	2	3	2H	2K	3K	4K	1	1	1	1	1	2	2	1H	7H	7H	7H
45	1	1	1	1	2	2	3	6K	4T	7T	9T	1	1	1	2	2	2	3	3H	2K	5K	6K	1	1	1	1	1	2	2	2H	7H	7H	7H
50	1	1	1	2	2	2	3	8K	5T	8T	1X	1	1	2	2	2	3	4	3H	3K	6K	8K	1	1	1	1	2	2	3	2H	7H	7H	7H
55	1	1	1	2	2	3	4	1T	6T	1X	1X	1	1	2	2	2	3	4	4H	4K	8K	1T	1	1	1	1	2	2	3	3H	7H	7H	7H
60	1	1	1	2	2	3	4	1T	6T	1X	1X	1	1	2	2	3	3	4	6H	5K	1T	1T	1	1	1	2	2	2	3	3H	7H	7H	7H
65	1	1	2	2	3	3	4	2T	8T	1X	2X	1	2	2	2	3	4	5	8H	7K	1T	2T	1	1	1	2	2	3	3	4H	7H	7H	7H
70	1	1	2	2	3	4	4	2T	9T	1X	2X	1	2	2	3	3	4	5	9H	8K	2T	2T	1	1	1	2	2	3	4	5H	7H	7H	7H
75	1	1	2	3	3	4	5	2T	9T	1X	2X	1	2	2	3	3	4	6	1K	9K	2T	2T	1	1	2	2	2	3	4	6H	7H	7H	7H
80	1	2	2	3	3	4	6	3T	1X	2X	2X	2	2	2	3	4	4	6	1K	1T	2T	3T	1	1	2	2	2	3	4	7H	7H	7H	7H
85	1	2	2	3	4	4	6	3T	1X	2X	2X	2	2	3	3	4	5	6	2K	1T	2T	3T	1	1	2	2	3	3	4	7H	7H	7H	7H
90	1	2	2	3	4	5	6	3T	1X	2X	2X	2	2	3	3	4	5	7	2K	1T	2T	3T	1	1	2	2	3	3	5	7H	7H	7H	7H
95	2	2	3	3	4	5	7	4T	1X	2X	2X	2	2	3	4	4	5	7	2K	2T	3T	4T	1	1	2	2	3	4	5	7H	7H	7H	7H
100	2	2	3	4	4	5	7	4T	1X	2X	2X	2	2	3	4	4	6	7	3K	2T	3T	4T	1	2	2	3	3	4	5	7H	7H	7H	7H

LIVING STEEL CHARACTER SHEET

Name:

Age:

Special:

Exceptional Merit:

Characteristics

Strength	STR
Intelligence	INT
Will	WIL
Health	HLT
Agility	AGI
Charisma	CHR
Leadership	LDR
Motivation	MOT
Size	SIZE
Teaching	TCH
Telep. Sens.	TS
Base Speed	
Maximum Speed	MS
INT Skill Factor	ISF
Combat Actions	CA
Knockout Value	KV
Learning Roll	LR

Physical Status

PD Total

DT
CTP
Med. Aid
RR
HT

Knockout Table

PD Total	Odds
Under KV ÷ 10	00
Over KV ÷ 10	10
Over KV	25
Over 2 × KV	75
Over 3 × KV	98

Action Time Table

1	*Move Forward one hex
3	*Move Backward one hex
2	*Assume a Firing Stance Over / Around Cover
1	*Assume a Hip Firing Stance Over / Around Cover
1	*Look Over / Around Cover
2	*Toss a Grenade
1	Duck from Firing Stance / from Looking
1	60 Degree Facing Change

Weapon	Physical Data	Aim Time AC	Aim Time ALM	Ballistic Data	Range in 2 Yard hexes						
					10	20	40	70	100	200	400
	L	1									
	W	2									
		3									
	RT	4									
	ROF	5									
		6									
	Cap	7									
	AW	8									
		9									
		10									
		11									
		12									
	SAB			MA							

Equipment

Armor	PF	Weight

Combat Equipment

Encumbrance = ______

Noncombat Equipment

General Skills	LPT	SL
Skill Type A		
1 Gun Combat		
Skill Type B		
2 Balance/Footwork		
3 Fall Recovery		
4 Hand-Hand Combat		
5 Unarmed H-H Combat		
Skill Type C		
6 Climbing		
7 Scouting		
8 Survival Skills		
9 Traps/Spotting		
Skill Type D		
10 Demolitions		
11 Espionage		
12 Infiltration		
Skill Type E		
13 Con/Acting		
14 Diplomacy		
15 Perception		
Skill Type F		
16 Driving		
Skill Type G		
17 Medical Aid		
Qualified Skills		
Lase Weapons		
Explosive Weapons		
Heavy Weapons		
Power Armor		
Grav Vehicles		

Data Tables

Join the Revolution in Game Design
and move up to the Leading Edge!

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GAMES

Living Steel™

High-Tech
Weapon Data Supplement

LEADING EDGE GAMES

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by Barry Nakazono

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ARMOR DATA TABLES

WEAPON DATA TABLES

This **High-Tech Weapon Supplement** has been designed for **Leading Edge Game's Living Steel** role-playing system or **Phoenix Command Combat System.** It contains all the weapon and armor data required for ultra high-tech warfare.

Weapon descriptions and rules covering Power Armor are found in the first two chapters. Included is a brief background and history, the details of which are found in the **Living Steel** role-playing system.

Weapon data is found in Chapter 3 and is divided into three sections: Point Fire Weapons, Explosive Direct Fire Weapons, and Grenades/Explosives. Within each section, the weapons have been separated by nationality and type. Each weapon's model number, type, caliber, and nationality are given on the left side of the page.

1.1

OVERVIEW

This section describes the weapons used in the Third Seven Worlds™—Starguild War. This war was interrupted by the Spectral invasion of known space, and also covers equipment used by all parties in that conflict. This time period corresponds to Tech Level 18 of our time line, Standard Date 2251 to 2345.

The primary combatants in the Seven World—Starguild wars have been Seven World forces, Starguild forces, and Dragoncrests™. Seven World and Starguild forces are human. The Dragoncrests are an alien race.

Until man met the Dragoncrests, he was his own worst enemy. Starguild and rebel forces, such as those on the Seven Worlds, fought countless battles on dozens of worlds. When man met the Dragoncrests, the situation didn't change, rather it became a three way battle. The Dragoncrests were man's first encounter with an equally advanced and belligerent race. Starguild, Seven World, and Dragoncrests have since fought many long and costly wars.

Wars which culminated in the defeat of Dragoncrest forces in the Second Seven World—Dragoncrest War and subsequent defeat of Seven World forces by the Starguild in the Second Seven World - Starguild war. These wars ended in 2291 and a period of relative peace followed. During this time, the victorious Starguild rebuilt the Seven Worlds as a model to the Starcaste system.

In 2337 Seven World rebels again attacked Starguild forces stationed on the Seven Worlds and the Third Seven World - Starguild War began for this vital system. This war had just begun when a new and deadly alien race, the Spectrals, invaded human space. The Spectral attack was clearly aimed at genocide, for they had a great hatred for humanity and were completely dedicated to its destruction. All available Starguild forces were rallied to fight this new invader, and contact with the Seven Worlds ended. The Spectral invasion has been mankind's greatest test. The mighty Starguild empire is collapsing under the onslaught and desperate struggles have broken out on dozens of worlds.

The weapons used in these conflicts have been divided into a number of categories and are described in the following sections.

1.2

LANDCASTE WEAPONS

The Landcaste are a caste of people who do not possess stardrive. They serve as planetary monitors governing the planets and colonies of the Starguild. They are subservient to their masters, the Starcaste.

The Starcaste are a caste of people who are members of ruling consortiums and corporations which have starforces. Possessing starforces, they dominate the affairs of the Landcaste. In effect, the Landcaste exist to serve the Starcaste. In exchange, the Landcaste's standard of living is raised commensurate with superior performance and productivity.

Landcaste weapons are similar to 20th century conventional arms. They fire high efficiency caseless munitions, but in most respects, Landcaste weapon technology has not progressed since 2010. The Landcaste have been held in check by their hereditary masters, the Starcaste. The Starcaste carefully monitor Landcaste weapon technology, and only in the Starforces has significant progress been made.

Landcaste elite infantry are armed with Starforce weapons. The number of elite troops is carefully monitored by the Starcaste. Landcaste governments are licensed to build only Landcaste weapons. Starforce weapons must be purchased and serviced by Starcaste representatives. The technology of most Starforce weapons is well within the capability of the Landcaste, the enforcement against their manufacture more by consent than inability. The Landcaste are not eager to irritate the Starcaste, and possession of Starforce small arms in no way threatens a Starfleet.

Flechette and Sliverguns

Flechette and sliverguns fire small metal darts. These darts are enclosed in a sabot which protects the dart from damage during firing. After leaving the barrel, the sabot falls away leaving only the dart to continue on. These sabots are of significant weight and could be dangerous to unarmored infantry within 5 hexes (10 yards) and 60 degrees to the front of flechette and sliverguns. Dart diameters are given in the Weapon Data Tables.

Flechette guns fire unstabilized darts. They use their aerodynamic form for flight stabilization in an atmosphere. Sliverguns fire fin-stabilized darts. Fin stabilization gives them a truer flight and longer effective range.

The limited effective range of flechette and sliverguns is due to their ammunition's inherent inaccuracy. Manufacturing tolerances and sabot ejection tipoff contribute to this inaccuracy. Do not use data from the shaded portion of the Ballistic Tables without using the Ballistic Accuracy rules of the **Advanced Phoenix Command Combat Supplement.**

Ammunition is held head-to-tail in four tubes housed in a rectangular magazine which fits along the length of the weapon. The ammunition is pressure fed to the firing mechanism near the butt end. This provides a high ammunition capacity without external protrusions. A self contained pressure unit within each magazine provides the pressure feed. These magazines are completely sealed before use. Upon loading, the seal is broken, and the unit pressurized. This minimizes contamination and dirt entry into the weapon.

The weapon's firing mechanism has two twin rotating chambers which function like a revolver. As each chamber passes its load tube, it is fed a round from the magazine. As it passes the barrel, it may be fired.

"Talk is cheap, but guns cost money."
Stuart Tank

Assault Rifles

Assault rifles and machine guns are similar to the sliverguns of the preceding section, but fire conventional spun stabilized ammunition. This provides excellent accuracy but lacks the penetrating power of the flechette or slivergun. Flechette and sliverguns fire long, high sectional density darts which give greater penetration for the same bullet mass and velocity. They, however, suffer from poor ballistics. Spun ammunition, on the other hand, is very stable and accurate. It does not require the manufacturing precision of fin-stabilized darts, and except for greater recoil and weight, is comparable to sliverguns in performance. For this reason, the assault rifle is the standard Landcaste military weapon. The weapon's magazine and firing mechanism is similar to those of flechette and sliverguns.

The following are a number of Landcaste weapons.

AP5-8: 6mm Automatic Pistol

Light automatic pistol adopted by Landcaste law enforcement agents and Starfleet personnel. Popular for its light weight, high ammunition capacity, and light recoil, it is by far the most widely used sidearm.

This caseless munition weapon is similar to 20th century automatic pistols. Ammunition is fed from the weapon's magazine in a manner typical of 20th century pistols. The powder charge is contained in a cavity in the rear of the projectile. As there is no case to eject, moving parts are completely internal to the weapon. In case of a misfire, or to remove a chambered round, the top slide is pulled back and the round ejected. The external top slide only moves when manually feeding or ejecting a round.

AP6-8: 7mm Automatic Pistol
7mm version of the AP5-8 designed to provide greater stopping power. It is a common sidearm of the Landcaste military.

AP7-8: 7mm Automatic Pistol
This is a long barreled version of the AP6-8 and was the standard sidearm of Starmarine and Landcaste forces during the Second Seven Worlds - Starguild war. Today it is widely used by professional forces and is highly respected for its accuracy and hitting power.

"Blam. Blam. Blam.
Click. Click.
"Stop Police."
Officer Cord Roberts
AKA "Rip-Cord"

FMP8: 1.5mm Flechette Machine Pistol
Compact machine pistol designed for clandestine operations. Its small size, light weight, and firepower make it a popular undercover weapon. Its short effective range limits its use as a military weapon, but its excellent short range characteristics make it popular with Starcaste and Landcaste bodyguards.

FMPX8: 2.8mm Flechette Machine Pistol
Compact machine pistol designed to defeat Power Armor at close range. This capability makes it popular with infiltration and high level security teams.

The FMPX8 offers a great deal of firepower in a small package. It is, however, rather heavy and has a limited effective range.

SMP8: 1.7mm Slivergun Sub-Machinegun
Standard Landcaste law enforcement weapon. It is a high velocity, caseless slivergun firing 1.7mm fin stabilized darts.

SMPGL8: 1.7mm Slivergun—Grenade Launcher
This popular Landcaste squad support weapon is a combination 1.7mm slivergun and 30mm grenade launcher. The five round semi-automatic grenade launcher is the primary system with the slivergun serving as a backup weapon. The slivergun uses standard SMP8 magazines.

SAR8: 2.1mm Slivergun Assault Rifle
Short range assault rifle used by Landcaste and Subcon infantry. Designed for use in built up areas, its lack of stand-off range is compensated by superior fire power at short range.

AR8L: 4.8mm Assault Rifle
Light assault rifle issued to Landcaste garrison troops and law enforcement tactical teams.

AR8: 6mm Assault Rifle
Standard weapon of the Landcaste military. Known for its hitting power and extended range.

SAW8: 6.9mm Squad Automatic Weapon
Standard light machine gun of the Landcaste military. It is issued as a squad support weapon.

MG8L: 6.9mm Machine Gun
Standard Landcaste machine gun. Handled by a two man team, it is the pivot of Landcaste fire team tactics. One man carries the weapon (29.4 lb), while the other ammunition (usually 4 magazines 28.8 lb).

The weapon's magazine is mounted forward of the firing mechanism. This location was chosen for ease of reloading and mass balance. The weapon has an internal ammunition transport system feeding rounds from the magazine to firing mechanism. This feed system holds 24 rounds, so the weapon's maximum capacity is 24 rounds greater than the magazine capacity. When a magazine is loaded into an empty weapon, 24 rounds are drawn into this feed system. When the magazine is empty a warning light goes on. The weapon still has 24 rounds remaining in the feed system, but the magazine has been emptied and may be replaced.

***MG8H: 10.6mm Machine Gun**

Standard Landcaste heavy machine gun. It is usually mounted on vehicles, but can be tripod mounted and serviced by a four man team in the field. One man carries the weapon less barrel (54.3 lb), a second the barrel and tripod (64.4 lb), and the other two, 4 magazines each (66 lb each).

1.3

STARFORCE WEAPONS

Starforce weapons have been designed for use by Starmarine forces in any environment. This ranges from zero "g", vacuum conditions to those of a heavy corrosive atmosphere. As shipping and supply are major factors, most are Lase models. Lase models use rechargeable power packs and save valuable shipping costs associated with expendable munitions. Lase weapons likewise do not depend on an atmosphere for projectile stabilization as a flechette or slivergun does and are not dependent on caseless munitions. Caseless munitions are dangerous on many planets because the atmosphere will spontaneously ignite the propellants on contact. This means any leak into the weapon magazine could be disastrous.

To fill the role of area weapons, a number of rocket and grenade launchers have been developed. These weapons are available in limited numbers and significantly increase the firepower of Starmarine forces.

All Starforce weapons have Advanced Aiming Systems (AAS). The AAS is an optical and millimeter wave radar sighting system which provides multi-wave light amplifying and radar imaging. Radar ranging and indirect fire elevation and targeting is also provided.

Gauss Guns

Gauss guns use a magnetic field to accelerate metal darts. These darts are similar to those used by sliverguns, but have no sabot. Gauss guns provide superb penetrating capability and better accuracy than sliverguns since they are not penalized by sabot ejection tipoff. Their disadvantages are a heavy power electronic package and high cost.

For many years weight and cost limited the gauss machine gun's acceptance by Starforces. With the advent of Power Armor and its high cargo capability, it found acceptance and is today the standard Starforce infantry support weapon.

Lase Weapons

Lase weapons are powered by a rechargeable power pack found in the pistol grip. To reload, simply exchange a fresh power pack for the spent unit. All Starforce small arms lase weapons use the same .4 lb power pack, its peak power capability being sized for the largest weapon. This interchangeability provides maximum commonality. Lase Battlepacks and Gauss Machine Gun Battlepacks use larger power packs and cannot use the smaller .4 lb packs. Likewise, Battlepack power packs cannot be used by the smaller weapons.

Man portable lase weapons have a limited range. This is due to limitations in the ability to focus the beam. The large aperature, or muzzle, is a focusing unit. The larger the diameter of this unit, the greater the range at which the beam can be focused. For practicality, lase weapons have a 55mm aperature which gives them a range of 100 hexes (200 yards). Larger aperatures are prone to damage, heavy, and expensive.

Beyond the weapon's aperature range the beam can no longer be focused. It spreads, and as a result, penetration is reduced while the beam diameter increased. Beam spreading, combined with losses in the atmosphere, result in the limited range of lase weapons. Some high power weapons are effective beyond their aperature range. For these weapons, the larger beam diameter results in a larger Damage Class (DC) beyond their aperature range.

"We would have believed it was an accidental shooting if he hadn't changed magazines ..... TWICE."

Judge Legg

Lase weapons have a number of power settings rather than ammunition types in the Ballistic Data section of the Weapon Data Tables. The first setting, marked (1), is for single shot fire. The other settings are for fully automatic fire and are the Rates Of Fire (ROF) in shots per burst. Note that the RID value for a lase weapon in fully automatic fire is less than the full power single shot setting.

A lase weapon's Ammunition Capacity gives the number of full power single shots which can be fired per power pack. Each burst of fully automatic fire uses three single shot charges of power independent of the ROF.

Battlepacks

Battlepacks are designed for Power Infantry and arm the user with a variety of lethal weapon systems. The backpack serves as an ammunition rack, reloading system, and power supply. They may be reloaded or replaced as a unit. As they use the suit's target designating system and assume the user is protected from back blast and recoil, they cannot be used by anyone not in Power Armor.

Battlepack weapons have no trigger and there are few breaks in their smooth outline. They are connected directly to the suit's targeting system through a pickup in the pistol grip. All weapon commands are relayed directly through this pickup to mechanisms within the weapon. This means the user need never remove his hand from the pistol grip. Starmarines call this "keeping in touch".

The stock is usually a simple rod ending in a ball joint. This joint mates to a socket in the suit's shoulder providing a firm, stable firing rest. The suit protects the user from the recoil pressure.

The bulky appearance of some of the weapons is due to armor. This protects the weapon from damage. The armor Protection Factor (PF) for backpack and weapon is given in the left column of the Weapon Data Tables.

The following are a number of Starcaste weapons. Model numbers preceded by an asterisk (*) are equipped with an Advanced Aiming System.

*GR8: 1.7mm Gauss Rifle

The limited range of lase rifles led to the development of the Gauss Rifle. Gauss weapons use a magnetic field to fire a fin stabilized dart. Until recently, the weight of the magnetic assembly and power electronics has limited them to a machine gun role. Today a man portable rifle is feasible.

This Gauss rifle is limited to semiautomatic fire as the weight of a fully automatic version exceeds Starforce weight limits. It provides Starmarines with a weapon with extended range capability, good penetration, and low ammunition weight. The power electronics and power pack are contained in a beltpack. The power pack (.4 lb) provides 175 rounds of fire and is the same as used in lase rifles.

*GMG8L: 2.8mm Gauss Machine Gun

Standard Starforce machine gun usually supported by Power Infantry. When used by non-powered infantry it is handled by a three man team. One man carries the weapon (31 lb), the second the power electronics (36 lb), and the third 10 magazines (34 lb). Each magazine contains an expendable power pack.

***BP-GMG8L: Battlepack Light Gauss Machine Gun**

Standard Starforce GMG8L machine gun mounted in a Battlepack. The backpack carries 5 extra magazines and its power packs will sustain 6 magazines of fire. To fire more than 6 magazines, two fresh power packs (3.3 lb each) must be installed.

***BP-GMG8H: Battlepack Heavy Gauss Machine Gun**

3.3mm Gauss Machine Gun mounted in a Cargo Carrier Battlepack. This is the Starforce's standard heavy machine gun. The weapon (53.7 lb) is carried in one hand, spare magazine rack (21.6 lb) in the other, and the power pack/electronics in the backpack (81.1 lb). The spare magazine rack holds 8 magazines. The power packs can sustain 9 magazines of fire. For further capability four fresh power packs (4.5 lb each) must be placed in the backpack.

***LMP8: Starfleet Lase Machine Pistol**

Standard Starfleet machine pistol designed for combat within the delicate confines of a starship. Its high Damage Class (DC) power settings will incapacitate unarmored targets without penetrating ship interior partitions or equipment panels, while its single shot fire is capable of defeating Power Armor. The LMP8 has an advanced adaptive focusing unit which allows it to vary beam size to match desired penetration. This means it is capable of varying its Damage Class (DC) and penetrating power. Against Power Armor, the standard small focal beam, single shot setting is used. Against unarmored targets, a variety of Rates Of Fire and beam size (Damage Class) are available.

***DRGN: Lase Machine Pistol**

This weapon is not a standard military or commercial weapon. It was produced illegally by Trident's RMBK division shortly before the Spectral invasion. These weapons were not exported and those found are part of an unknown quantity produced at the RMBK plant. Like the LMP8, it has an advanced adaptive focusing unit and can adjust beam size to fit need.

***LAR7: Lase Assault Rifle**

Standard Starmarine weapon during the Dragoncrest wars. More LAR7s were produced than the sum of all other models. Today, the LAR7 is still in service, but is no longer in production.

***LAR8: Lase Assault Rifle**

Standard Starforce lase weapon of the period. It is an updated version of the renowned LAR7.

***LARGL8: Lase Rifle—Grenade Launcher**

Standard Starforce grenade launcher. It combines a 30mm grenade launcher with a standard LAR8 lase rifle. It is a common close support weapon particularly popular with Medium Combat Power Armored troops.

"... and grenades are also useful for digging foxholes, removing unwanted shrubbery, unclogging drains ..."

Art's Book of Explosives
for Pyromaniacs

***LMG8L: Light Lase Machine Gun**

This light lase machine gun is a common Starforce squad support weapon.

***LMG8H: Heavy Lase Machine Gun**

Heavy lase machine gun providing excellent close support with extended range capability.

***GLB8A: 30mm Grenade Battery**

Tripod or turret mounted 30mm grenade launcher intended for vehicular use. It is an area saturation weapon commonly used by the Landcaste military for crowd suppression.

***RL8A: 70mm Rocket Launcher**

Shoulder fired low velocity rocket launcher effective against light fortifications and medium armored vehicles. It is breech loaded.

***RPG8A: 80mm Rocket Propelled Grenade**
Shoulder fired low velocity rocket propelled grenade launcher ideal for close combat support. It is a light, maneuverable, breech loading weapon.

***BP-GL8A: Battlepack 30mm Grenade Launcher**
High velocity Battlepack grenade launcher. It has a selectable auto-assisted reloading system which allows the user to selectively load ammunition of different types from the weapon's backpack magazine. To reload, the user swings the launch tube over his shoulder into the backpack loading system where it is automatically reloaded. The launcher is then removed for firing.

The BP-GL8A can fire standard 30mm grenades but usually uses its own high velocity ammunition. This high velocity ammunition will not feed in the SMPGL8, or LARGL8, as those weapons will not take the higher loads.

***BP-RR8C: Battlepack 45mm Rocket Rifle**
The Rocket Rifle is the product of a top priority program which began shortly after the start of the Dragoncrest wars. It is a copy of the Dragoncrest X3LR1 shoulder fired high velocity rocket launcher. During the Dragoncrest wars it was available in three calibers 20, 35, and 45mm. Now only the 45mm version remains in service. This is a Battlepack version of the large caliber rocket rifle designed to defeat Power Armor and armored vehicles at long to extreme range. Like the BP-GL8A, it has a selectable **auto-assisted reloading system**. To reload, the user swings the launch tube over his shoulder into the backpack loading system. A rocket is then automatically fed and armed after which the tube is removed for firing.

The Rocket Rifle was never popular with Starforces due to the expense of its ammunition. It saw limited service and was replaced by the Gauss Machine Gun.

***BP-RL8A: Battlepack 70mm Rocket Launcher**
Battlepack RL8A rocket launcher with shortened tube and selectable auto-assisted reloading system (see BP-RR8C).

***BP-RPG8A: Battlepack 80mm Rocket Propelled Grenade**
Battlepack RPG8A with selectable auto-assisted reloading system (see BP-RR8C).

1.4

SEVEN WORLD WEAPONS

Seven World forces of the Third Seven World - Starguild war are a quickly assembled body of rebels and volunteers. Their weapons vary with unit and availability. Rebel forces are armed with standard Starforce weapons. Volunteers with whatever was available, typically Landcaste weapons.

Exceptions to this are a few units reported armed with Seven Sword Power Armor. This Power Armor is not produced within the Starguild and up to this time thought extinct. It has not been seen since the fall of the Seven Worlds to Starguild forces decades ago. Today new updated models are reported in action against Starguild forces. The primary weapon system of Seven Sword Power Armor are Seven Sword Battlepacks. These Battlepacks are based on Dragoncrest models and were developed during the 1st and 2nd Seven World—Dragoncrest Wars.

The expense of maintaining and manufacturing Seven Sword style Battlepacks has kept the Starguild from putting them into production. Such systems are designed for a small and highly trained fighting force. The Starguild has always relied on numbers and area saturation weapons rather than the quality of individual infantry. The Starguild relies on the BP-GMG8L and BP-RPG8A which can be produced at a fraction of the cost and are more useful against unarmored targets.

***7SL8: Seven Sword Battlepack Lase Rifle**
Sturdy, formidable lase cannon designed specifically to defeat Power Armor and armored vehicles. It can only be used with Seven Sword Power Armor and power packs. The backpack contains six 2.5 lb power packs.

***7SLR8: Seven Sword Twin Battlepack**

The 7SLR8 is a dual weapon system. It combines a high power lase rifle and 15mm rocket rifle into one deadly system. This allows the user to engage targets efficiently at both long and short range.

Data for the lase rifle is found in the Point Fire Weapon section. Data for the rocket rifle is found in the Explosive Direct Fire Weapon section. The lase rifle is powered by two 2.5 lb power packs contained in the backpack. Power is transferred through an armored umbilical from backpack to weapon. The backpack contains a selectable auto-assisted reloading system for the rocket rifle. This reloading system is described in the BP-RR8C weapon entry.

***7SLG8: Seven Sword Twin Battlepack**

The 7SLG8 is a dual weapon system combining a high power lase rifle and 30mm grenade launcher. It is designed for maximum firepower in close contact with Starguild forces.

Data for the lase rifle is found in the Point Fire Weapon section (7SLR8 entry). Data for the grenade launcher is found in the Explosive Direct Fire Weapon section. The lase rifle is powered by two 2.5 lb power packs contained in the backpack. Power is transferred through an armored umbilical from backpack to weapon. The backpack contains a selectable auto-assisted reloading system for the grenade launcher. This reloading system is described in the BP-RR8C weapon entry.

1.5

SPECTRAL WEAPONS

Not a great deal is known of the Spectral homeland or origin. What is known is that they are an entirely alien race which operates with a hive mentality. They do not exist as individuals and are separated into four distinct types: Minor Workers, Major Workers, Minor Warriors, and Major Warriors. Each class has a specific function within their communities but the exact nature of their command, economy, and civilization is unknown.

Spectrals control a number of subject races. To date, two such races have been identified, the Trank and Slozek. The Trank are used as technicians, the Slozek as light infantry. It is surmised that all Spectral weapons and equipment are manufactured by the Trank.

Spectral equipment is a direct copy of Starguild models. These copies are identical in all respect to Starguild originals and may be identified by the fact they all bear the same serial and lot number. Weapons which have been copied are the LAR8, LMG8L, LMG8H, GMG8L, LARGL8, RL8A, and RPG8A. Spectral Workers and auxiliary troops are bipedal with limbs well suited for using these weapons. Weapons are carried, used, and serviced without modification of the basic Starguild design.

Spectral Warriors significantly modify their weapons. As they are designed purely for war, these bipeds assimilate their weapons into their own body structure. Exterior panels and handles are removed and muscle groups are grown for operating the weapon's internal mechanical features. This makes the weapon a permanent feature of a Spectral Warrior. It is reloaded and its parts serviced as any Starguild weapon, but it is now part of the Warrior with muscle groups specifically designed for its function. If the weapon is damaged, it is rejected and a replacement assimilated. This assimilation takes three hours.

While the majority of Spectral weapons are of Starguild design, new weapons of original design have been reported. One such is the X7MP1. This design cannot be traced to Dragoncrest or Starguild, but is built with manufacturing techniques unique to Dragoncrest technology. Speculation indicates a possible collusion between Spectral and Dragoncrest. If confirmed that alliance would tip the balance further in the Spectral's favor.

X7MP1: Spectral Machine Pistol

This weapon was transported to Rhand by the Spectral invasion force. It is a light, compact machine pistol firing 7.3mm explosive rounds. Tens of thousands were dispersed by the Spectrals. This weapon cannot harm Spectral Warriors and has been designed specifically to kill unarmored targets.

1.6

GRENADES AND EXPLOSIVES

Grenades are normally **impact detonated,** but also have a **timer** and **ground sensing detonator.** The timer is a standard delay fuse which can be set from one tenth of a second to 58.25 hours. The ground sensing detonator will detonate upon detection of a 30 lb or larger object moving within one hex of its location. To place a ground sensing charge, the grenade is set to the ground mode for detection sensitivity of zero to one hex. The timer is then set and determines a safe time during which the ground sensor is inactive. After this time, the ground sensor is armed and will detonate upon detection of a 30 lb or larger object moving within its sensitivity range.

Grenades attach directly to a Combat Suit or fighting harness and have a safety switch. In safe mode they are inert. In arm mode the grenade may be removed by pressing dual release clasps. Upon release it is armed. The Arm Time entry gives the time to release and arm the grenade. Once armed it may be thrown, its timer set, or ground sensing system activated.

All grenades have a **bonding agent** at their base. When activated, they may be stuck on walls, ceilings, or vehicles.

The following is a brief description of common combat grenades and mines.

G-F8A: Starfleet Fragmentation Grenade

Small fragmentation grenade with limited explosive and fragmentation effects. This grenade is designed for use in commercial starcraft and can be used to knockout vehicular crews without destroying the vehicle.

G-F8B: Fragmentation Grenade

Small fragmentation grenade whose size and weight allow a number to be carried. This grenade is designed for clearing buildings.

G-B8B: Blast Grenade

Blast grenade similar to the G-F8B except it has no fragmentation sleeve and has an increased explosive charge. It is the same size as the G-F8B and has a protruding ridge on its case for easy identification.

G-F8C: Fragmentation Grenade

Standard fragmentation grenade of both Starforce and Landcaste military. Its fragmentation sleeve contains metal spheres of armor piercing materials for improved penetration.

G-B8C: Blast Grenade

Nonfragmenting version of the G-F8C. It is the same size as the G-F8C and has a protruding ridge on its case for easy identification.

MGL-8A: Hydra—Multiple Grenade Launcher

The Hydra is a disposable unit which deploys to a 15 inch length for firing. It functions like a standard grenade launcher but fires three grenades simultaneously. The detonation range of the first grenade is set during sight deployment. The second grenade explodes 1 hex and the third 2 hexes further downrange. The minimum detonation range of the first grenade is 6 hexes. After an arming distance of 6 hexes the grenades may be impact detonated.

The Arm Time includes the time to deploy and set the detonation range. Weapon accuracy and aim time are handled as if the weapon were a grenade launcher. The

Aim Time Mods are identical to those for an AP5-8 pistol. The Weapon Data Table contains data for one of the three grenades. Damage from each would be done separately.

M-CBU8B: Cluster Bomb Unit
Small Cluster Bomb Unit usually used as a mine. It has a ground sensing detonator (sensitivity range 0 to 5 hexes) and a radio detonator receiver. The mine may be buried up to four inches in loose ground. When activated a small charge lifts it out of the ground and ejects 7 grenades. These grenades detonate on impact, one into each hex within a 1 hex range of the mine. The Weapon Data Table contains data for one of these grenades. Damage from each would be done separately.

M-CBU8C: Cluster Bomb Unit
Larger version of the M-CBU8B which functions in the same manner.

M-F8B: Flechette Mine
This flechette mine has the same ground sensing and detonating system as the M-CBU. When activated a small charge lifts it from the ground and detonates it. It is a single point grenade firing armor piercing flechettes. These flechettes are effective against Power Armor and light vehicles.

2.1

NONPOWERED ARMOR

The **Armor Data Table** located at the back of this supplement defines a number of body armors and gives their weights and armor **Protection Factors (PF)**. The larger the PF, the greater the protection. The PF measures protection against penetration. If the weapon's RID is less than or equal to the PF, the armor stops the projectile. The **BPF** measures armor stiffness and is used in the **Advanced Phoenix Command Combat Supplement** and **Phoenix Command Hand-to-Hand Combat System.**

The **Armor Data Table** breaks armor Protection Factors (PF) into four areas; head, visor, body, and limbs. A **Combat Suit** is a complete integral suit. Except for helm and gloves it cannot be broken into smaller pieces.

These unpowered armors are used by Landcaste and Starforce troops throughout known space. Body armor has become a standard piece of equipment in even the poorest military.

Flexible Armor
Flexible armor is made from flexible bullet resistant material. It is light, flexible, and comfortable to wear. Usually worn under normal clothing, flexible armor is worn by all off duty military personnel.

Combat Suit
A Combat Suit is a vacuum isolation suit made of flexible armor. It may include a life support system with air rebreather and thermal control. The **life support system** draws air, water, and power from a small beltpack. This beltpack provides a rated capacity of 24 hours. For extended use, extra beltpacks can be carried. A beltpack designed for operation in a lethal atmosphere weighs 7 pounds. Beltpacks for worlds in which breathing air can be filtered from the atmosphere weigh 2 pounds.

The Combat Suit not only protects the user from his environment, it provides autonomous **puncture repair** and **medical aid.** When the suit is punctured, it automatically attempts to seal the breach. The chance of its successfully accomplishing this depends on the Damage Class of the injury. The wounded man should roll a 1-10 random number each time he takes a penetrating hit. If the number rolled is less than the Damage Class of the injury received, the suit failed to seal. If he is in a hostile environment this is a major problem. If he is still conscious he can attempt to patch the hole with a sealing unit located in the palm of each hand. Using this unit takes only 1 Action Count and all he need do is place the unit over the breach.

Chemicals released by the suit in the breach location will automatically activate the sealing unit. The system does not work for punctures he cannot reach.

The **medical aid** system of the Combat Suit is simple and effective. Whenever the suit is punctured, and the user's body functions indicate he has been incapacitated, the suit automatically constricts about all wounds. This limits bleeding and doubles the injured's **Critical Time Period (CTP)** (Living Steel, Chapter 8). The suit then activates a homing beacon and continues to monitor body functions. When the user's body functions indicate impending death, the suit injects him with the drug **Oxyspan** (Living Steel, Section 3.4). This increases his Critical Time Period by the lesser of 2 hours or 100 times his CTP. Only one dose of Oxyspan can be taken, and at this point the suit has done all it can. If the user dies, it modifies its beacon signal letting would be rescuers know their is no need to hurry.

Armor Panels

Armor panels are rigid armor plates which fit over a Combat Suit. They greatly improve protection, at the expense of weight. They are worn by any force expecting to come under fire. The level of protection worn depends on the threat expected and strength of the user. The Starforce and Landcaste military require a soldier to have a Maximum Speed of at least 4HPP at full combat load.

DRGN Armor

DRGN armor is a Combat Suit of unknown purpose developed by Trident's RMBK plant on the planet Rhand. It has all the features of a standard Combat Suit but is made of a metallic material whose purpose and origin remains unknown. RMBK efforts in weapon research was strictly forbidden by the Starguild, and the security under which the program was performed was not penetrated before the unexpected Spectral invasion.

2.2

POWER ARMOR

Power Armor is a full coverage exoskeleton with power supply and servos. It requires the user to have **surgically implanted reference nodes.** These nodes are small metal plates implanted on the bone to monitor and control limb and suit movement. It provides night vision, acts as a vacuum isolation suit, and can withstand temperatures up to 800 degrees fahrenheit for extended periods. It can filter breathing air from the atmosphere, but normally draws from its own air tanks. In hand-to-hand combat it gives an extra Damage Bonus of times six.

Power Unit

Power Armor runs off a rechargeable power unit which is usually recharged after every 24 hours of operation. Recharge may be performed using a Power Receiver, Grav Vehicle power plant, or Expendable Power Pack (EPP). The number of EPP required to recharge the power unit is given in the **Armor Data Table** under the EPP column. EPP are portable, single use, power cells. Each weighs ten pounds.

Bicomp

The Bicomp is the suit's computer and target designator. It regulates suit movement, sensors, equipment, communications, and balance. Together, the user and Bicomp are an integral team.

The Bicomp 8 is a state of the art processor. It responds to voice and physical commands and can be programmed to take control of suit functions if the user becomes incapacitated. The Bicomp 8 is a sophisticated processor capable of complex programming but does not have its own intelligence. It is capable only of preprogrammed decisions.

Trident's RMBK team on Rhand were working secretly on a Bicomp with artificial intelligence. Such research violated all convention of the Starguild. That project was destroyed during the Spectral invasion of Rhand.

Medical Aid

Power Armor contains all the medical aid features of a Combat Suit in addition to an **Auto-Medic Kit** (Living Steel, Section 3.4), and improved puncture repair system. The improved sealing system allows the user to roll a 1-20 number in determining whether the sealing system functions or fails (Combat Suit, Section 2.1).

Power Armor contains 12 **injectable drug cartridges** (Living Steel, Section 3.4). These injections may be self administered or given to others. Injections are administered to others through a port in the tip of the index finger. To inject another person in Power Armor the injection must be made through a special port at the base of the helm. This injection takes 8 Action Counts.

Armor Panels

Power Armor has replaceable armor panels which mount to an internal structural frame. The frame provides all joints, hydraulic mounts, equipment mounts, and structural strength. The size and strength of the frame depends on the suit's Combat Load and armor weight.

Power Armor comes in a number of models, each designed to fill a particular role. In the Starforces there are three roles; heavy, medium, and light Power Armor. Each differs in gross weight and resulting ground pressure. Heavy Power Armor is used in ground combat, Medium Power Armor within buildings and structures, and Light Power Armor within Starfleet vessels. Starforces have optimized a specific model for each role. These models are not interchangeable.

The Seven Worlds did not have the luxury of specific models to fit each combat role. Their Power Armor was designed to handle all roles by making their armor panels nonload bearing and easily removable. Starforce armor panels can only be replaced at a repair facility.

Seven Sword armor panels can be removed in part or totally without affecting the suit's function. The Bicomp will automatically adjust for changes in mass loading. This results in one model which can be converted to either of the lighter roles. While not as efficient as their Starforce counterparts, this ability allows the armor panels to be replaced with special function panels such as smoke devices, small grenade launchers, and electronic packages.

"Death is the only acceptable form of amnesty."

Captain Austine D. Blackwell

Hydraulic System

The suit's motion is powered by two redundant hydraulic systems. Either one will provide full function. The two for one redundancy improves reliability and survivability. It also provides the capability for boost power. **Boost power** uses both hydraulic systems rather than one. It consumes twice the power and generates twice the waste heat, but allows the user to jump further, accelerate quicker, and produce greater static strength. Boost power is limited to short emergency actions and can fatigue and damage the suit if used at full Combat Load. It is intended to provide short bursts of high acceleration in emergency conditions.

Defensive Systems

Power Armor is primarily a defensive system. It protects the user from explosive concussion and penetrating damage and increases his Combat Load allowing heavier more lethal weapons to be carried.

To confuse enemy auto-detection and targeting systems, Power Armor external surfaces have **radar damping surfaces** and a **passive spectral regulating system.** This system controls the reflection of light striking the armor to produce any color or pattern of colors desired. This provides a cameleon like ability and enhances stealth and concealability in any environment. Pattern color and shape are controlled by the suit's Bicomp. In noncombat conditions, this system is used to display badges of rank, unit logos, and color schemes which take the place of uniforms.

Thermal emission is minimized and directionally emitted from the backpack. This minimizes the thermal profile for front facing. In an emergency, the suit can go to maximum shutdown with waste heat stored in a **thermal dam.** This dam has a one hour capacity in maximum shutdown mode and a one minute capacity at normal operation. After that time, normal thermal emission must be resumed to prevent overheating. This thermal dam can be emptied by spending one minute at maximum shutdown with normal thermal emission.

Visual Sensors

Power Armor contains two sets of visual sensors; a wide angle **Bifocal Unit** mounted on top of the helm and a tight angle **Gun Camera** mounted at eye level on the external armor visor.

The **Bifocal Unit** is a multiwave optical camera and millimeter radar. It provides bifocal optical light amplifying imaging as well as radar ranging and imaging. The Bifocal Unit acts as the eyes of a man in Power Armor when he has his armor visor closed.

The armor visor is an opaque armor plate protecting the eyes. If the Bifocal Unit is destroyed the armor visor must be opened for unrestricted vision. With the armor visor open, protection of the Eye – Nose hit location is provided only by a transparent shield of PF = 10.

Each time a target in Power Armor is hit in the Forehead or Head Glance hit location there is a 25% chance that hit strikes the Bifocal Unit. If the Bifocal Unit is hit by a shot whose RID is greater than 10, the unit is destroyed. Further penetration is resisted by the suit's external armor.

"Standing behind the girl won't do you any good, she'll only stop 3 points."

Ronald Unreasonable
King of Vissers

The **Gun Camera** is mounted outside the armor visor and is provided so the user can fire weapons which have no Advanced Aiming System with his armor visor closed. If the Gun Camera is destroyed, and the user does not open his armor visor to aim, he fires with an ALM modifier of −4. Each time a person in Power Armor is hit in the Eye—Nose hit location there is a 10% chance the Gun Camera is hit. If the shot's RID is greater than 10, the Gun Camera is destroyed. Further penetration is resisted by the suit's armor visor.

The armor visor includes an external **holographic display.** This display is often used to project the user's face during normal conversation thereby improving personal communications and interactions. This display is controlled by the suit's Bicomp and may be used to display maps and information, diagnostics and schematics, or video imagery. Troops often use it to personalize their armor, although such display violates regulations.

Starforce weapons are equipped with an optical and millimeter wave radar sighting system. These **Advanced Aiming Systems (AAS)** function much like today's optical scopes, but provide light amplifying and radar imaging as well as radar ranging. Power Armor is equipped with a hand grip pickup which hook them directly to the Advanced Aiming System. The AAS is thus directly connected to the suit's target designator screen bypassing the external gun camera. This allows Power Armored troops to use the weapon mounted AAS as a remote visual sensor. The AAS provides only tight angle field of view, but is useful since the weapon can be stuck around cover for observation and firing without exposing the user.

For unrestricted movement and visibility, all visual sensors must be fully functional. If a character loses his weapon's AAS he may switch to his armor visor's gun camera without penalty. If both the AAS and gun camera are out he may use his Bifocal unit for aiming with an ALM of −4, or open his armor visor for unrestricted aim.

If the Bifocal unit is out, the character may use his gun camera or AAS for limited vision. He can fire his weapon without penalty but his movement is limited to 2 HPP and his Field of View drastically reduced. Opening his armor visor frees him of any visibility restrictions.

Ground Sensors

Power Armor has an active and passive ground seismic sensors which warn of potentially dangerous footing or structures that will not support the user's weight. They are located in the feet of the suit and in passive mode can sense the movement of ground vehicles in the distance.

Ultrasonic Sensors

Power Armor has ultrasonic sensors which allow the user to navigate in smoke screens. This system is used whenever the standard optical and radar systems are blocked. Its image resolution is course and it cannot pick up objects smaller than six inches in size. When the user is stationary this system can be used as a motion detector. As a motion detector it has a range of 100 hexes and resolution of six inches. This system is located with the Bifocal Unit. If the Bifocal Unit is destroyed, the Ultrasonic Sensors are also destroyed.

2.3

POWER ARMOR CHARACTER GENERATION

Power Armor is a self contained hydraulically powered weapon system. As it is hydraulically assisted, the user's running speed and load he can carry is more a function of skill and suit design than strength. The speed the user can maneuver, his Combat Actions, is still to some extend a function of strength.

Maximum Speed

A Power Armored character's **Maximum Speed (MS)** depends on his Power Armor skill and suit design. This Maximum Speed, in hexes per phase, is found on the **Power Armor Data Table** and does not depend on his Strength characteristic. This speed assumes the user is at least 7th skill level in the Qualified Skill of Power Armor. If he is 4th to 6th level, his Maximum Speed is one-fourth the value listed. If he is 1st to 3rd level he cannot move safely over speeds of 2HPP.

Combat Load

The Combat Load is the maximum equipment weight that can be carried into combat. This weight is given in the **Power Armor Data Table** and depends on suit design. It is limited by the suit's structural capability during combat accelerations and is based on weights in a one "g" environment. Even if fighting in low "g" conditions, this Combat Load cannot be exceeded.

Noncombat Load

In noncombat conditions where the user can carefully and slowly walk and maneuver, the suit's Combat Load can be exceeded. Up to four times the Combat Load can be carried at low speed (less than 2HPP), but no quick accelerations or movement is possible.

Combat Actions (CA)

A Power Armored character's **Combat Actions (CA)** depend on his Strength, Agility, and skill. While the Power Armor provides the actual power for motion, the user's strength, agility, and skill dictate the speed commands can be carried out.

To find a Power Armored character's Combat Actions (CA), find his Maximum Speed (MS) using **Tables 3A** and **3B (Living Steel)** for an Encumbrance of 10 lb. Cross-index this MS with his Intelligence Skill Factor on **Table 3D** to find his CA. Note that this MS is used to find the CA only, his actual running maximum speed is given on the **Power Armor Data Table.**

2.4

POWER ARMOR DESCRIPTION

The following are a number of Power Armor models used during the Third Seven Worlds—Starguild war and Spectral invasion. The majority of these are Starguild models.

Heavy Combat Power Armor (HCPA)

HCPA is the standard Starforce ground combat model. Its gross weight is 900 pounds and is limited by its resulting ground pressure. Heavier models are too heavy for common ground conditions and the 900 lb gross weight limit has become standard. Eighty percent of all Starmarine Power Armor units are armored in HCPA.

"Like Heavy Metal? .... How about 900 lbs. . ."

Imperial Guard recruiting poster

Medium Combat Power Armor (MCPA)

MCPA is found in Medium Power Armor units and is used in areas were the ground, building, or structure will not support the weight of HCPA. MCPA units are used in city and street fighting and are selected from recruits showing the highest initiative and morale, as these play a key role in close combat.

Light Combat Power Armor (LCPA)

LCPA is a Starfleet Power Armor designed for use onboard military starcraft. MCPA and HCPA are too heavy for this role. All Starfleet infantry are armored in LCPA and serve as the ship's security team.

Starfleet power infantry is not associated with Starmarine forces. Starmarine forces are ground combat units, Starfleet power infantry serve all Starfleet vessels and space actions. While power infantry is a minority within Starmarine forces, Starfleet infantry is entirely Power Armor trained and equipped. They are a small and highly trained body of men rarely employed in the ground role.

Skiffdress

Skiffdress is a light Starfleet Power Armor designed for use on commercial starcraft. Commercial vessels are not built to military code and cannot be counted on to support the weight of LCPA. All boarding and search of commercial vessels is handled by Skiffdressed Starfleet power infantry.

Slow Cargo Carrier (SCC)

SCC is designed specifically for supporting non-power infantry. It has a maximum speed sufficient to keep pace with non-powered infantry and high Combat Load. It is used by Landcaste and Starmarine forces to carry ammunition, Battlepacks, and heavy ordinance.

Fast Cargo Carrier (FCC)

FCC is similar to SCC and serves the same function. FCC has a Maximum Speed which allows it to keep up with power infantry. FCC serves as an ammunition and heavy weapon bearer for a Power Armor unit.

Scout

Scout Power Armor is used by forward observers and scouts. It is a high speed Power Armor with expanded sensor and communication payload.

Crew

Crew Power Armor is worn by the crew of fighting vehicles. It protects them from shrapnel and concussion thus improving overall vehicle survivability. It has an extended life support and communications capability designed to improve a downed man's chance of rescue.

7SPA Seven Sword Power Armor

7SPA was developed on the Seven Worlds long before the Starguild introduced Power Armor into service. It is based on Dragoncrest Power Armor and was developed during the Seven Worlds' many battles with Dragoncrest and Starguild.

Today 7SPA is the ultimate in a human Power Armor system. Its principal weapon is the **Seven Sword Battlepack**, but a variety of **auxiliary packs** round out the system. These auxiliary packs are unique to the user's tastes and style of combat. Dozens of varieties are encountered and only a few have been included here. Seven Sword Auxiliary Packs are the subject of the Power Armor Auxiliary Equipment Supplement.

Seven Sword Power Armor can be adapted to three configurations. All are derived from the same model. The first has a ground pressure equivalent to Starforce HCPA. The second, has an outer layer of armor panels removed reducing the ground pressure to MCPA class, while the third has been stripped to its basic frame and has a ground pressure equivalent to Starforce LCPA. This configuration is used for Starfleet operations. The outer armor panels are installed for ground operations.

2.5

SEVEN SWORD AUXILIARY PACKS

The following are a number of Seven Sword Auxiliary Packs. These units attach directly to the power armor's frame or armor panels. The weights and PF protecting the pack mechanism is given in the left column of the Weapon Data Tables or with each pack description in the text that follows.

***7SFP-AP Flechette Pistol** Weight 4.2 Weapon PF = 8

This Seven Sword Flechette Pistol is installed in the outer forearm armor panel. Seven Sword Battlepacks are heavy systems whose weight limits their quick response ability. The 7SFP-AP gives the user a fast, light weapon in his off-hand. Rather than traverse the heavy Battlepack in response to surprise, the user can rapidly swing his 7SFP-AP to bear.

Weapon data for the 7SFP-AP is found in the Point Fire Weapon section. It has its own gun camera.

***7SGP-AP Grenade Pistol** Weight 4.5 Weapon PF = 8

Small Grenade Pistol installed in the outer forearm armor panel. Weapon data is found in the Explosive Direct Fire Weapon section. It has its own gun camera and must be manually reloaded.

7SSP-AP Scatter Pack Weight 2.8 Weapon PF = 8 Ammo 1.2

The 7SSP-AP may be mounted to the shoulder near the base of the helm, or to the inner wrist panel. It is a single use explosive which fires flechettes into a 60 degree cone. Targets in this cone are attacked as by a M-F8B flechette mine (Grenades and Explosives section).

The shoulder mounted unit has a 180 degree field of fire off the shoulder. Both units take 1 Action Count to traverse 60 degrees and may be fired as they bear (No odds of hitting rolled) The Ammo entry gives the weight of a Scatter Pack reload. Reloading must be done manually and takes 12 AC.

7SSm-AP Smoke Generator Weight 3.2 Mech PF = 8 Reload 2.4

The Smoke/Chaf auxiliary pack mounts to the front or rear thigh panel. It is a multiple use smoke/chaf generator which creates an opaque smoke screen of radius 2 hexes (Smk = 4). The unit may be started and stopped upon command, with total smoke generation per charge of 60 phases. The smoke is generated at the user's position. If he is moving a screen can be laid. This screen is one hex wide and follows the user's path during generation. It last 20 phases and blocks vision, radar, and infrared detection. It reduces the RID of lase fire by 10 points per hex crossed.

7SSmL-AP Smoke Launcher Weight 1.8 Mech PF = 8 Reload .6

Shoulder mounted Smoke Launcher with a 180 degree field of fire off the shoulder. When fired it creates a smoke screen one hex wide traveling 7 hexes per phase for two phases. The smoke has the same effects as that in the 7SSm-AP entry.

7SED-AP Explosive Damper Weight 5.4 Mech PF = 8 Reload 4.5

Thigh mounted anti-explosive package which covers an area of 1 to 4 hex diameter centered about the user in airgel. This airgel is opaque, last 60 phases, and has the effects of smoke/chaf given in the 7SSm-AP entry. In addition to screening, it dampens the concussion effects of explosives (Blast Modifier = 0.1). It will dampen only one blast after which it is atomized. When activated the screen forms almost instantly (5MPC) in a circular pattern. Up to 16 one hex, 4 two hex, 2 three hex, or 1 four hex diameter pattern can be made per pack.

POINT FIRE WEAPONS

Detailed weapon data is provided in the following sections. This data is used by the **Living Steel** and **Phoenix Command Combat System.** Those familiar with the combat system will recognize most of the weapon values. The shaded and optional values are used with the **Advanced Phoenix Command Combat Supplement** and should not be used with the basic system.

This section is devoted to pistols, sub-machineguns, rifles, and machine guns. In the interest of space and efficiency, the values presented have been abbreviated.

Length (L)

Folded and deployed weapon length in inches.

Weight (W)

The loaded weapon weight in pounds. Does not include a holster or sling.

Reload Time (RT)

The time, in Action Counts, required to fully reload the weapon.

Rate Of Fire (ROF)

The time, in Action Counts, required to chamber a round from the weapon's magazine.

An asterisk (*) indicates a self-loading action in which a round is chambered automatically after each shot fired. With this type of weapon, a round is always ready for fire until the magazine is empty.

A number following an * indicates the weapon is capable of fully automatic fire and gives the number of rounds fired per half second burst.

A double asterisk (**) indicates the weapon has three round burst capability. A number after a ** indicates it is also capable of fully automatic fire and is the number of rounds fired per half second burst. Weapons marked with an *V or **V are capable of variable rates of fully automatic fire.

Weapons with no ROF entry have no magazine; the time required to prepare a shot is given by the Reload Time (RT).

Lase weapons have a number of power settings rather than ammunition types in the Ballistic Data section of the Weapon Data Tables. The first setting, marked (1), is for single shot fire. The other settings are for fully automatic fire and are the Rates Of Fire (ROF) in shots per burst. Note that the RID value for a lase weapon in fully automatic fire is less than the full power single shot setting. The RID of each round of a Three Round Burst is given by the (6) round autofire entry.

Ammunition Capacity (Cap)

The maximum number of rounds held in the weapon's magazine. A lase weapon's Cap gives the number of full power single shots which may be fired per power pack. Each burst of fully automatic fire uses three single shot charges, independent of the ROF.

Ammunition Weight (AW) and Feed Device

The ammunition weight in pounds per magazine (Mag), power pack (Pck), or individual round (Rnd).

Sustained Automatic Burst (SAB)

The measure of weapon accuracy during long bursts of automatic fire.

Aim Time Modifier (Aim Time Mod)

The combined measure of the weapon's accuracy and speed of aim. There are several Aim Time Modifiers, one for each Aim Time listed in the 3rd column. The greater the Aim Time Modifier, the greater the weapon's accuracy.

Relative Impact Damage (RID) / Damage Class (DC)

The RID measures bullet penetrating power. The DC measures bullet damage capability. The greater the RID and DC, the greater the penetration and damage. The RID and DC are given for target ranges 10, 20, 40, 70, 100, 200, 300, 400, and 600 hexes. A hex is two yards across. There are three sets of RID and DC values. Each set represents a different type of ammunition as given to the left of these values: Armor Piercing (AP), Explosive (Exp), Full Metal Jacket (FMJ), High Explosive (HE), High Explosive Anti-Tank (HEAT), Jacketed Hollow Point (JHP), Soft Steel Dart (SSD), or Steel Dart (SD).

Players not using the **Advanced Phoenix Command Combat Supplement** should not use weapon data from the shaded portion of the tables. The shaded regions represent performance beyond the weapon's Effective Range and are intended for use in the **Advanced Phoenix Command Combat Supplement.**

Minimum Arc (MA)

The minimum number of hexes over which a burst of fully automatic fire must be spread. The greater the weapon's recoil, the greater the Minimum Arc.

Ballistic Accuracy (BA)

The measure of weapon/ammunition accuracy potential. The larger the BA, the greater this potential.

Time Of Flight (TOF)

The projectile's time of flight in tenths of seconds (Master Phasing Counts (MPC)).

Reliability Class (RC) and Burst Reliability Class (BRC)

The RC and BRC give the chance of weapon malfunction in tenths of percent for each single shot fired (RC) or half second burst of automatic fire (BRC). The larger the RC or BRC, the more unreliable the weapon. An * preceding the RC or BRC indicates the malfunction chance is in percent.

Clear Jam Time (CJT) and % Clear Jam (%CJ)

The CJT gives the time, in Action Counts, required to attempt to fix a weapon which has malfunctioned. After each CJT Action Counts spent attempting to fix the weapon, the player has a % Clear Jam (%CJ) chance of fixing the weapon.

Hand-To-Hand Combat Values

The Hand-To-Hand combat values are for use with either **Rhand Morningstar Missions** or the **Phoenix Command Hand-To-Hand Combat System.**

The Weapon Speed (WS) measures weapon speed, the **Weapon Class (WC)** measures weapon accuracy. The greater the WS and WC the faster and more accurate the weapon. The **Range (R)** gives the weapon's combat range in 2 foot hexes, while the **Impact Damage (ID)** measures weapon impact. The greater the ID the more severe the blow. A number in parentheses such as (8) indicates a roll of an eight-sided die. E.g., (8) + 2 is the roll of an eight-sided die plus 2. ID values are given for three types of blows: overhead butt smash (IDb), stab (IDs), and cut (IDc). A weapon with no bayonet uses the Blunt damage table for a butt smash or cut, and the Flange table for a stab. Weapons fitted with a bayonet use the Blunt table for a butt smash, Stabbing table for a stab, and either Cutting or Blunt table for a cutting blow.

3.2

EXPLOSIVE DIRECT FIRE WEAPONS

Explosive Direct Fire Weapons include rocket launchers, grenade launchers, and rocket propelled grenades. They are listed in a separate section of this supplement as their entries differ somewhat from those of the standard small arms.

The Explosive Direct Fire Weapon Tables have been divided into a left and right-hand side. The values on the left side are identical to those in the Point Fire Weapon section. The RID and DC values on this side give the projectile's penetration and damage capability. The values on the right side represent the projectile's explosive effects. These RID and DC give the explosive's shrapnel penetration and damage, depending on target range from burst in 2 yard hexes. The Base Shrapnel Hit Chance (BSHC) gives the percent chance of hitting each target in the burst area with shrapnel. The Base Concussion (BC) measures concussion damage. The "C" entry is for a target in Contact with the explosive.

The **Angle Of Incidence (AOI)** measures the projectile's striking angle. This value will be used in our **Mechanized Combat System.**

3.3

GRENADES AND EXPLOSIVES

As with Explosive Weapons, the RID and DC for Grenades and Explosives measure shrapnel penetration and damage, the BSHC the chance of hitting with shrapnel, and the BC the concussion damage, depending on target range from burst in 2 yard hexes. The **Arm Time** is the time, in Action Counts, to arm the explosive; and the **Range,** the distance it can be thrown in 2 yard hexes (from a kneeling stance).

Non-Powered Armor Data Table

Non - Powered Armor	Armor Weight			Armor Protection Factor (PF)				BPF		
	No Life Support	With Air Filtration	Full Life System	Helm	Visor	Body	Limbs	Head	Body	Limbs
Light Flexible Armor	2.0	-	-	-	-	4	-	-	1	-
Medium Flexible Armor	2.5	-	-	-	-	6	-	-	2	-
Heavy Flexible Armor	3.0	-	-	-	-	10	-	-	3	-
Basic Combat Suit	7.4	13.7	17.7	4	4	2	2	3	1	1
with Level 1 Armor Panels	13.9	20.2	24.2	10	10	16	2	4	3	1
with Level 2 Armor Panels	29.3	35.6	39.6	20	10	30	2	5	5	1
with Level 3 Armor Panels	37.1	43.4	47.4	20	10	40	2	5	6	1
with Level 4 Armor Panels	47.1	53.4	57.4	30	10	50	2	7	6	1
with Level 5 Armor Panels	56.2	62.5	66.5	40	10	60	2	8	7	1
DRGN Combat Suit	10.0	16.3	20.3	2	2	2	2	2	1	1

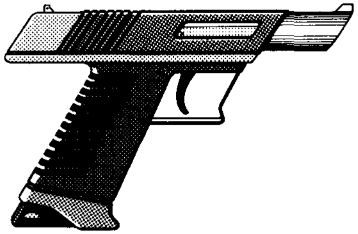
Power Armor Data Table

Power Armor Model	Gross Weight (lb)	Ground Pressure	Combat Load (lb)	Maximum Speed (HPP)	Life Support		Power Unit			Armor Protection Factors								BPF
					Cap (hr)	Expend. (lb)	Cap (hr)	Weight (lb)	EPP #	Helm	Armor Visor	Visor	Body	Limbs	Hands	Bfcl Unit	Gun Cam	
Starforce																		
Heavy (HCPA)	900	12	110	7	41	12	24	48	4	100	100	10	100	100	40	10	10	10
Med (MCPA)	600	8	50	7	41	12	24	36	3	60	60	10	60	60	40	10	10	9
Light (LCPA)	450	6	30	7	41	12	24	32	3	30	30	10	30	30	40	10	10	8
Skiff	300	4	12	7	20	6	18	12	1	10	10	10	10	10	10	-	-	7
Cargo (SCC)	900	12	280	4	41	12	24	24	2	60	60	10	60	60	40	10	10	9
Cargo (FCC)	900	12	240	7	41	12	24	48	4	60	60	10	60	60	40	10	10	9
Scout	900	12	86	10	41	12	24	85	7	70	70	10	70	70	40	10	10	9
Crew	450	6	45	7	96	28	48	66	6	10	10	10	10	10	10	10	10	7
Seven Sword																		
7SPA (Hvy)	900	12	120	7	24	7	24	48	4	100	100	10	100	100	40	10	10	10
(Med)	600	8	20	7	24	7	18	24	2	50	50	10	50	50	40	10	10	9
(Lgt)	450	6	20	7	24	7	24	24	2	10	10	10	10	10	40	10	10	7

Starguild Weapons

AP5-8 / Landcaste

6mm Automatic Pistol



Standard Landcaste Law Enforcement & Starfleet pistol. Known for its high capacity, light recoil, and accuracy, it was introduced in 2053 and since then has been very successful.

Physical Data	
L	7
W	2.8
RT	3
ROF	*
Cap	25
AW	.46 Mag
SAB	3

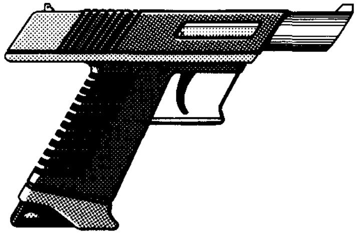
Aim Time AC	Aim Time Mod
1	-18
2	-11
3	-10
4	-9
5	-8
6	-7

Ballistic Data		10	20	40	70	100	200	300	400	600
FMJ	RID	4.9	4.6	4.1	3.5	3.0	1.7	1.0		
	DC	3	3	3	3	2	1	1		
JHP	RID	4.7	4.4	4.0	3.4	2.9	1.7	1.0		
	DC	5	5	5	4	4	2	1		
AP	RID	14	13	12	10	8.4	4.9	2.8		
	DC	3	3	3	3	2	1	1		
	BA	61	53	44	37	32	22	17		
	TOF	0	1	2	3	4	9	15		

Optional Data	
RC	2
CJT	4
%CJ	90
WS	2.4
WC	0
R	1
IDb	(6)+3

AP6-8 / Landcaste

7mm Automatic Pistol



Standard sidearm of the Landcaste military. Providing more stopping power than the AP5-8, today it is used only by Landcaste forces. Starmarine forces prefer the AP7-8.

Physical Data	
L	7
W	3.5
RT	3
ROF	*
Cap	21
AW	.51 Mag
SAB	4

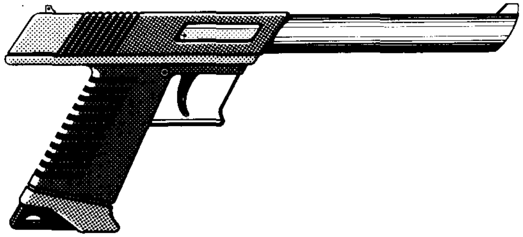
Aim Time AC	Aim Time Mod
1	-18
2	-12
3	-10
4	-9
5	-8
6	-7

Ballistic Data		10	20	40	70	100	200	300	400	600
FMJ	RID	5.8	5.5	5.0	4.2	3.6	2.1	1.2	.7	
	DC	5	4	4	4	3	2	1	1	
JHP	RID	5.6	5.3	4.8	4.0	3.4	2.0	1.2	.7	
	DC	6	6	6	6	5	3	1	1	
AP	RID	16	16	14	12	10	5.9	3.4	2.0	
	DC	4	4	4	4	3	2	1	1	
	BA	60	51	42	35	30	20	15	11	
	TOF	0	1	1	3	4	8	14	20	

Optional Data	
RC	2
CJT	4
%CJ	90
WS	2.3
WC	0
R	1
IDb	(8)+2

AP7-8 / Landcaste

7mm Automatic Pistol



Long barrel version of the AP6-8 known for its accuracy and power. It is the standard pistol of Starforces and was used by professional & mercenary forces during the Dragoncrest Wars.

Physical Data	
L	11
W	3.6
RT	3
ROF	*
Cap	21
AW	.51 Mag
SAB	5

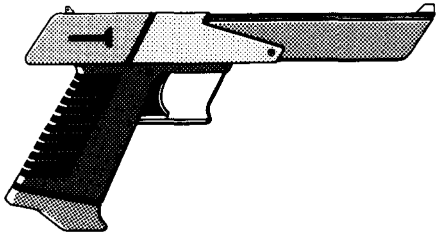
Aim Time AC	Aim Time Mod
1	-18
2	-11
3	-10
4	-9
5	-8
6	-7
7	-6

Ballistic Data		10	20	40	70	100	200	300	400	600
FMJ	RID	7.4	7.0	6.4	5.5	4.7	2.8	1.7	1.0	.4
	DC	5	5	5	4	4	3	2	1	1
JHP	RID	7.1	6.7	6.1	5.2	4.5	2.7	1.6	1.0	.4
	DC	7	7	7	6	6	4	2	1	1
AP	RID	21	20	18	15	13	7.9	4.8	2.9	1.0
	DC	5	5	5	4	4	3	2	1	1
	BA	60	51	43	35	30	21	15	11	6
	TOF	0	1	1	2	3	7	12	17	29

Optional Data	
RC	2
CJT	4
%CJ	90
WS	2.3
WC	-1
R	1
IDb	(8)+2

FMP8 / Landcaste

1.5mm Flechette Machine Pistol



Compact machine pistol popular with bodyguards and undercover agents. Its short effective range limits its use as a standard military weapon.

Physical Data	
L	8
W	2.8
RT	5
ROF	*12
Cap	60
AW	.29 Mag
SAB	1

Aim Time AC	Aim Time Mod
1	-18
2	-11
3	-10
4	-9
5	-8
6	-7

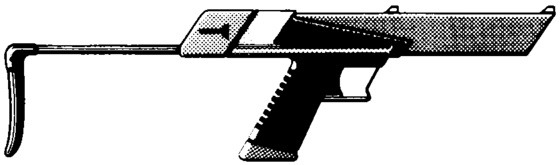
Ballistic Data		10	20	40	70	100	200	300	400	600
SD	RID	17	16	14	12	10	6.0	3.5	2.0	
	DC	2	2	2	1	1	1	1	1	
SSD	RID	16	15	14	12	9.9	5.7	3.3	1.9	
	DC	3	3	2	2	2	1	1	1	
AP	RID	47	45	40	34	29	17	9.8	5.7	
	DC	2	2	1	1	1	1	1	1	
	MA	.2	.3	.6	1	2	3	5	6	
	BA	32	26	18	12	7	-2	-7	-11	
	TOF	0	0	1	1	1	3	5	8	

Optional Data	
RC	1
BRC	*1
CJT	3
%CJ	90
WS	2.4
WC	0
R	1
IDb	(6)+3

Starguild Weapons

FMPX8 / Landcaste

2.8mm Flechette
Machine Pistol

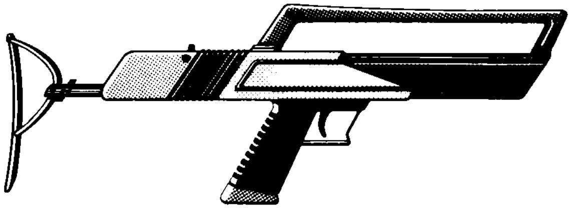


High power machine pistol popular with infiltration & high level security teams It can penetrate Power Armor but has a limited range.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	13/20	1	-20	SD	RID	40	38	34	**28**	**24**	**14**	**7.6**	**4.3**	**1.4**	RC	1
W	5.3	2	-11		DC	5	5	4	**4**	**3**	**3**	**2**	**1**	**1**	BRC	6
		3	-8													
RT	5	4	-6	SSD	RID	39	36	32	**27**	**23**	**13**	**7.3**	**4.1**	**1.3**	CJT	3
ROF	**6	5	-5		DC	7	7	6	**6**	**6**	**4**	**3**	**2**	**1**	%CJ	90
		6	-4													
		7	-3	AP	RID	113	107	95	**80**	**68**	**38**	**21**	**12**	**3.8**	WS	2.1
Cap	48				DC	4	4	4	**4**	**3**	**2**	**2**	**1**	**1**	WC	-1
AW	.95														R	1+
	Mag				3RB	-4	1	6	**10**	**13**	**17**	**20**	**22**	**25**		
					MA	.3	.6	1	**2**	**3**	**6**	**9**	**12**	**18**	IDb	(8)+4
					BA	32	25	18	**11**	**7**	**-2**	**-8**	**-11**	**-16**	IDc	(4)
SAB	3				TOF	0	0	1	**1**	**1**	**3**	**6**	**8**	**13**	IDs	(6)

SMP8 / Landcaste

1.7mm Slivergun
Sub-Machinegun

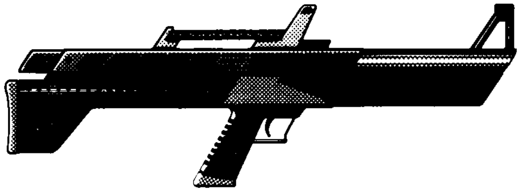


Standard Landcaste Law Enforcement weapon for agents in Bondsmen areas. In Landcaste and Starcaste areas, pistols are issued.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	20	1	-20	SD	RID	42	39	35	30	25	**14**	**8.1**	**4.6**		RC	1
W	4.8	2	-11		DC	2	2	2	2	2	**1**	**1**	**1**		BRC	6
		3	-8													
RT	6	4	-6	SSD	RID	40	38	34	29	24	**14**	**7.8**	**4.4**		CJT	3
ROF	**6	5	-5		DC	3	3	3	3	3	**2**	**2**	**1**		%CJ	90
		6	-4													
		7	-3	AP	RID	118	111	99	84	71	**40**	**23**	**13**		WS	2.1
Cap	52				DC	2	2	2	2	2	**1**	**1**	**1**		WC	0
AW	.73														R	1+
	Mag				3RB	-6	-1	4	8	10	**15**	**18**	**20**			
					MA	.2	.4	.9	2	2	**4**	**7**	**9**		IDb	(8)+3
					BA	34	29	24	19	16	**9**	**5**	**2**		IDc	(3)
SAB	2				TOF	0	0	1	1	1	**3**	**6**	**8**		IDs	(6)

SMPGL8 / Landcaste

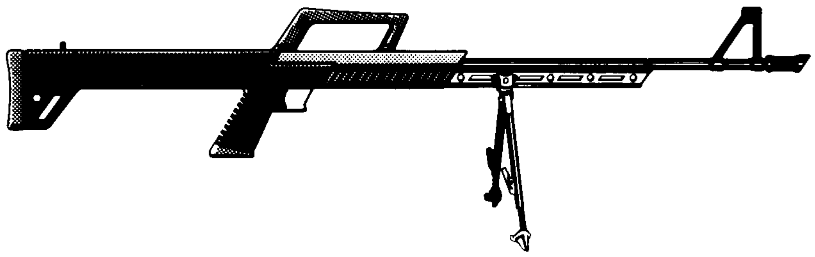
1.7mm Slivergun SMG
30mm Grenade Lncher



Standard Landcaste squad support weapon with 1.7mm slivergun & 30mm grenade lnchr It fires SMP8 ammo. The Grenade launcher is the primary weap.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	25	1	-26	SD	RID	42	39	35	30	25	**14**	**8.1**	**4.6**		RC	1
W	10.4	2	-12		DC	2	2	2	2	2	**1**	**1**	**1**		BRC	6
		3	-9													
RT	6	4	-8	SSD	RID	40	38	34	29	24	**14**	**7.8**	**4.4**		CJT	3
ROF	**6	5	-5		DC	3	3	3	3	3	**2**	**2**	**1**		%CJ	90
		6	-4													
		7	-3	AP	RID	118	111	99	84	71	**40**	**23**	**13**		WS	1.8
Cap	52				DC	2	2	2	2	2	**1**	**1**	**1**		WC	-2
AW	.73														R	2
	Mag				3RB	-6	-1	4	8	10	**15**	**18**	**20**			
					MA	.2	.3	.6	1	2	**3**	**4**	**6**		IDb	(12)+3
					BA	34	29	24	19	16	**9**	**5**	**2**		IDc	(8)+2
SAB	1				TOF	0	0	1	1	1	**3**	**6**	**8**		IDs	(6)+3

SAR8 / 2.1mm Slivergun Assault Rifle / Landcaste

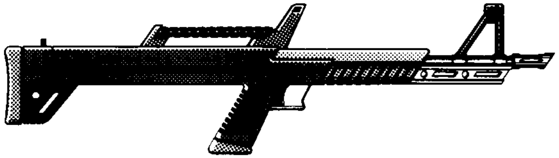


Short range assault rifle issued to garrison and city troops.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-22	SD	RID	64	62	58	52	47	**33**	**23**	**16**	**7.8**	RC	1
W	8.2	2	-12		DC	4	4	4	3	3	**3**	**2**	**2**	**2**	BRC	7
		3	-9													
RT	9	4	-7	SSD	RID	62	59	55	50	45	**31**	**22**	**15**	**7.5**	CJT	4
ROF	**7	5	-6		DC	6	6	6	5	5	**4**	**4**	**3**	**2**	%CJ	90
		6	-5													
		7	-4	AP	RID	181	174	162	146	131	**92**	**64**	**45**	**22**	WS	1.9
Cap	56	8	-3		DC	4	4	3	3	3	**3**	**2**	**2**	**1**	WC	-1
AW	1.3	9	-2												R	2+
	Mag	10	-1		3RB	-4	1	6	10	13	**18**	**21**	**23**	**26**		
		11	0		MA	.4	.9	2	3	4	**9**	**13**	**17**	**26**	IDb	(10)+4
					BA	34	29	24	19	16	**10**	**6**	**3**	**-1**	IDc	(6)+3
SAB	4				TOF	0	0	1	1	1	**3**	**5**	**7**	**12**	IDs	(6)+2

Starguild Weapons

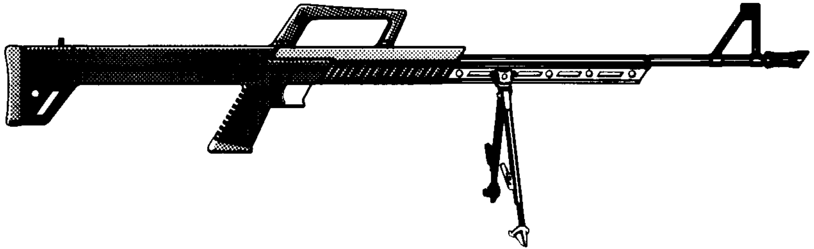
AR8L / 4.8mm Assault Rifle / Landcaste



Light assault rifle used by Law Enforcement tactical teams.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
						10	20	40	70	100	200	300	400	600		
L	28	1	-22	FMJ	RID	36	35	33	30	27	19	14	10	5.3	RC	1
W	8.5	2	-12		DC	7	7	7	7	7	6	5	4	3	BRC	8
		3	-9													
RT	9	4	-7	JHP	RID	35	33	31	28	26	19	13	9.7	5.1	CJT	4
ROF	**8	5	-6		DC	9	9	9	8	8	7	7	6	4	%CJ	90
		6	-5													
		7	-4	AP	RID	101	98	92	83	76	55	40	29	15	WS	1.9
Cap	56	8	-3		DC	7	7	7	7	6	6	5	4	3	WC	-1
AW	2.1	9	-2												R	2
	Mag				3RB	-4	0	5	9	12	17	20	22	25		
					MA	.5	1	2	3	5	10	15	20	30	IDb	(10)+4
					BA	64	57	50	43	39	29	24	20	15	IDc	(6)+1
SAB	4				TOF	0	0	1	1	1	3	5	7	11	IDs	(6)+2

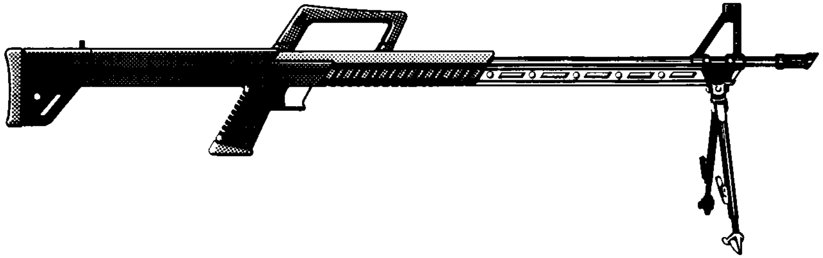
AR8 / 6mm Assault Rifle / Landcaste



Standard rifle of the Landcaste military.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
						10	20	40	70	100	200	300	400	600		
L	42	1	-24	FMJ	RID	50	48	46	42	39	30	24	18	11	RC	1
W	12.0	2	-14		DC	9	9	8	8	8	8	7	6	5	BRC	5
		3	-10													
RT	9	4	-8	JHP	RID	48	46	44	41	38	29	23	17	10	CJT	4
ROF	**5	5	-6		DC	10	10	10	10	10	9	9	8	7	%CJ	90
		6	-5													
		7	-4	AP	RID	140	136	129	120	111	86	66	51	31	WS	1.7
Cap	52	8	-3		DC	8	8	8	8	8	7	7	6	5	WC	-2
AW	2.5	9	-2												R	2+
	Mag	10	-1		3RB	2	7	12	16	19	24	26	29	31		
		11	-1		MA	.5	1	2	3	5	10	15	19	29	IDb	(12)+4
		12	0		BA	64	58	51	44	40	31	25	22	16	IDc	(8)+3
SAB	5				TOF	0	0	1	1	1	3	5	7	11	IDs	(6)+3

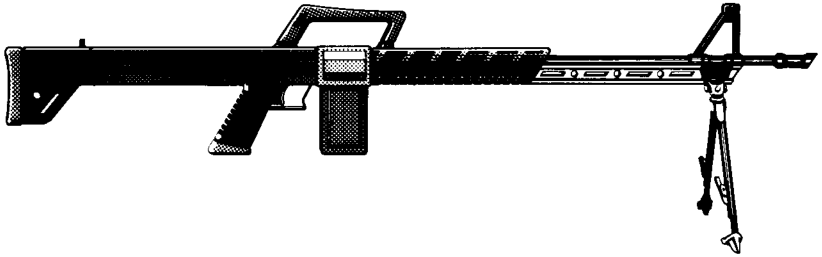
SAW8 / 6.9mm Squad Automatic Weapon / Landcaste



Standard Landcaste LMG issued as a squad support weapon.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
						10	20	40	70	100	200	300	400	600		
L	42	1	-27	FMJ	RID	61	60	57	54	50	40	32	26	17	RC	1
W	18.9	2	-17		DC	9	9	9	9	9	9	8	8	7	BRC	4
		3	-11													
RT	9	4	-8	JHP	RID	59	57	55	51	48	39	31	25	16	CJT	4
ROF	**4	5	-7		DC	10	10	10	10	10	10	10	9	8	%CJ	90
		6	-6													
		7	-4	AP	RID	173	169	162	151	142	114	91	73	47	WS	1.6
Cap	32	8	-3		DC	9	9	9	9	9	8	8	8	7	WC	-3
AW	2.5	9	-3												R	2+
	Mag	10	-2		3RB	4	9	14	18	20	25	28	30	33		
		11	-1		MA	.4	.8	2	3	4	8	12	16	23	IDb	(14)+6
		12	0		BA	65	58	51	45	41	32	26	23	17	IDc	(10)+3
SAB	5				TOF	0	0	1	1	1	3	5	6	10	IDs	(8)+3

MG8L / 6.9mm Machine Gun / Landcaste

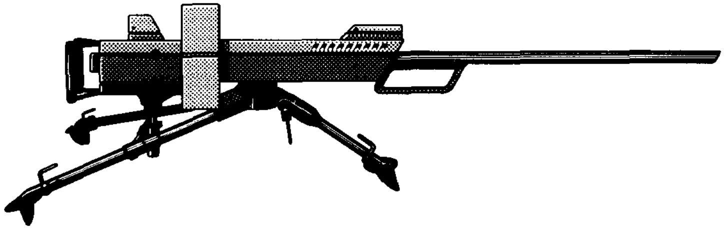


Standard Landcaste machine gun issued at the platoon level.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
						10	20	40	70	100	200	300	400	600		
L	42	1	-30	FMJ	RID	61	60	57	54	50	40	32	26	17	RC	2
W	29.4	2	-20		DC	9	9	9	9	9	9	8	8	7	BRC	8
		3	-14													
RT	8	4	-10	JHP	RID	59	57	55	51	48	39	31	25	16	CJT	4
ROF	**4	5	-8		DC	10	10	10	10	10	10	10	9	8	%CJ	80
		6	-6													
		7	-5	AP	RID	173	169	162	151	142	114	91	73	47	WS	1.4
Cap	160	8	-4		DC	9	9	9	9	9	8	8	8	7	WC	-4
AW	7.2	9	-3												R	3
	Mag	10	-2		3RB	1	6	11	15	18	23	26	28	30		
		11	-1		MA	.3	.5	1	2	3	5	8	11	16	IDb	(20)+5
		12	-1		BA	65	58	51	45	41	32	26	23	17	IDc	(12)+6
SAB	4	13	0		TOF	0	0	1	1	1	3	5	6	10	IDs	(10)+3

Starguild Weapons

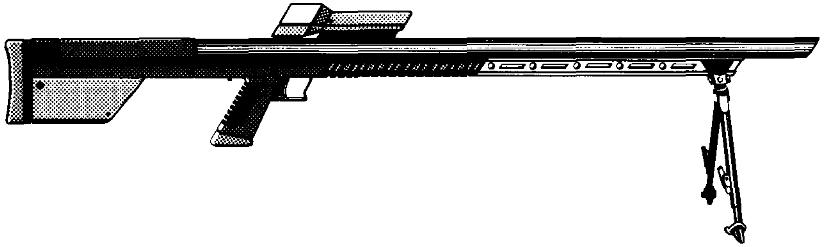
*MG8H / 10.6mm Heavy Machine Gun / Landcaste



Standard Landcaste heavy machine gun with Advanced Aiming System.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
						10	20	40	70	100	200	300	400	600		
L	51	1	-36	FMJ	RID	112	110	107	103	98	85	74	64	48	RC	1
W	118.7	2	-25		DC	10	10	10	10	10	10	10	10	10	BRC	4
		3	-20													
RT	8	4	-14	JHP	RID	107	106	103	98	94	82	71	61	46	CJT	4
ROF	**4	5	-10		DC	10	10	10	10	10	10	10	10	10	%CJ	80
		6	-6													
		7	-3	AP	RID	315	310	302	289	277	240	208	180	135		
Cap	96	8	-1		DC	10	10	10	10	10	10	10	10	10		
AW	16.5	9	1													
	Mag	10	2		3RB	-2	3	8	12	14	19	22	24	27		
		11	4		MA	.2	.3	.7	1	2	3	5	7	10		
		12	5		BA	65	59	53	47	43	34	29	25	20		
SAB	3	15	7		TOF	0	0	1	1	1	3	4	6	10		

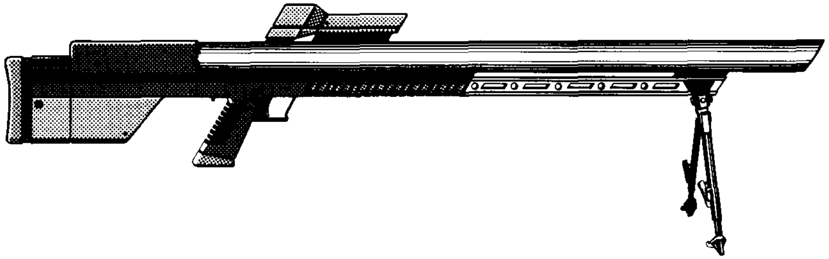
*GR8 / 1.7mm Gauss Rifle / Starforce



Starmarine weapon with extended range and good penetration.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-23	SD	RID	60	58	53	46	40	26	17	11	4.4	RC	1
W	11.5	2	-12		DC	3	3	3	3	3	2	2	1	1		
		3	-8													
RT	8	4	-5	SSD	RID	58	55	50	44	39	25	16	10	4.2	CJT	10
ROF	*	5	-2		DC	5	5	5	4	4	3	3	2	1	%CJ	5
		6	-1													
		7	1	AP	RID	169	162	148	130	114	73	47	30	12	WS	1.8
Cap	25	8	2		DC	3	3	3	3	2	2	2	1	1	WC	-2
AW	.20	9	4												R	2+
	Mag	10	5													
		11	6												IDb	(12)+4
		12	7		BA	34	29	24	19	16	10	6	3	-2	IDc	(8)+3
SAB	2				TOF	0	0	1	1	1	3	5	7	11	IDs	(6)+3

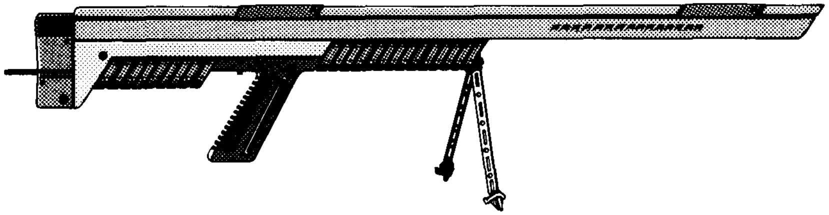
*GMG8L / 2.8mm Gauss Machine Gun / Starforce



Standard Starforce machine gun normally handled by a 3 man team.

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-29	SD	RID	109	106	101	94	87	69	54	42	26	RC	1
W	67.0	2	-18		DC	6	6	6	6	6	6	5	4	4	BRC	6
		3	-12													
RT	8	4	-7	SSD	RID	104	102	97	90	84	66	52	41	25	CJT	10
ROF	**6	5	-4		DC	8	8	8	8	8	7	7	6	6	%CJ	5
		6	-2													
		7	0	AP	RID	306	299	284	265	246	193	152	119	74		
Cap	144	8	1		DC	6	6	6	6	6	5	5	4	3		
AW	3.4	9	3													
	Mag	10	4		3RB	-9	-4	1	5	8	13	15	17	20		
		11	6		MA	.2	.3	.6	1	2	3	5	6	9		
		12	7		BA	34	29	24	20	17	11	7	5	1		
SAB	2	13	8		TOF	0	0	0	1	1	3	4	6	10		

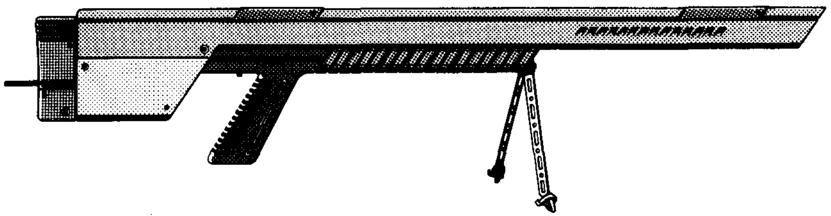
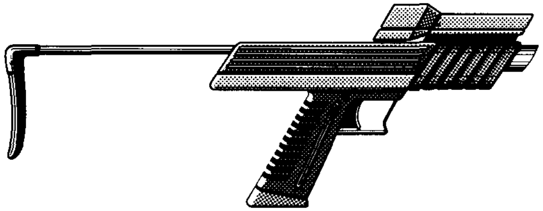
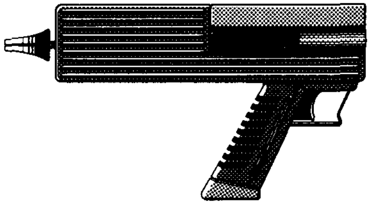
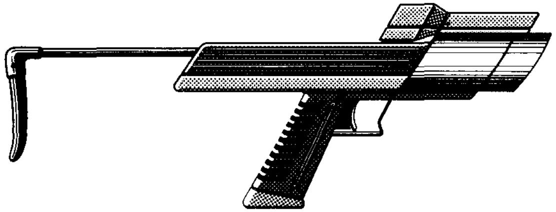
*BP-GMG8L / 2.8mm Battlepack Gauss Machine Gun / Starforce



GMG8L in a Power Armor Battlepack.

	Backpack (5 Mag)	Weapon
W =	57	35
PF =	5	5

Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-30	SD	RID	109	106	101	94	87	69	54	42	26	RC	1
W	92	2	-19		DC	6	6	6	6	6	6	5	4	4	BRC	*1
		3	-13													
RT	6	4	-7	SSD	RID	104	102	97	90	84	66	52	41	25	CJT	10
ROF	**12	5	-4		DC	8	8	8	8	8	7	7	6	6	%CJ	5
		6	-3													
		7	0	AP	RID	306	299	284	265	246	193	152	119	74		
Cap	144	8	1		DC	6	6	6	6	6	5	5	4	3		
AW	1.7	9	3													
	Mag	10	4		3RB	-18	-14	-9	-5	-2	3	6	8	11		
		11	5		MA	.2	.3	.6	1	2	3	5	6	9		
		12	6		BA	34	29	24	20	17	11	7	5	1		
SAB	1	13	8		TOF	0	0	0	1	1	3	4	6	10		

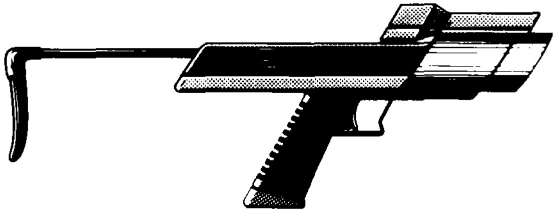
Starguild Weapons	Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data	
							10	20	40	70	100	200	300	400	600		
*BP-GMG8H / 3.3mm Battlepack Gauss Machine Gun / Starforce	L	42	1	-33	SD	RID	136	134	129	121	115	94	78	64	44	RC	1
	W	157	2	-22		DC	8	8	7	7	7	7	7	6	6	BRC	*1
			3	-16													
	RT	6	4	-11	SSD	RID	131	128	123	116	110	91	75	62	42	CJT	10
	ROF	**12	5	-6		DC	9	9	9	9	9	9	8	8	7	%CJ	5
			6	-4													
			7	-1	AP	RID	384	377	362	342	323	266	219	181	123		
	Cap	144	8	0		DC	7	7	7	7	7	7	6	6	6		
	AW	2.7	9	2													
		Mag	10	3		3RB	-18	-14	-9	-5	-2	3	6	8	11		
			11	5		MA	.2	.3	.6	1	2	3	5	6	9		
HMG in a Cargo Backpack W = 103 Weapon W = 54			12	6		BA	34	29	24	20	17	11	8	5	1		
Carrier Battlepack. (8 Mag) PF 5 PF = 5	SAB	1	14	8		TOF	0	0	0	1	1	3	4	6	9		
*LMP8 / Starforce	L	11/20	1	-19	(1)	RID	146	142	26							RC	1
	W	5.7	2	-9	(4)	RID	36	35								BRC	1
Lase Machine Pistol			3	-6	(6)	RID	24	23			3RB						
	RT	3	4	-3		DC	2	2	5								
	ROF	**V	5	-1													
Standard weapon of			6	0	(10)	RID	3.5	3.2									
Starfleet Infantry.			7	2	(18)	RID	1.9	1.7								WS	2.1
Designed for use on	Cap	1310				DC	5	5								WC	-1
Starfleet vessels	AW	.4														R	1
with multiple power		Mag				3RB	-5	0	5								
settings limiting						MA	.2	.2	.3							IDb	(8)+4
penetration and						BA	70	65	60								
damage to the vessel.	SAB	1															
*DRGN / Trident RMBK	L	14	1	-20	(1)	RID	322	315	69							RC	1
	W	6.8	2	-9	(4)	RID	80	78	9.8							BRC	1
Lase Machine Pistol			3	-6	(6)	RID	53	51	3.2		3RB						
	RT	3	4	-3		DC	2	2	5								
	ROF	**V	5	-1													
Advanced LMP built			6	0	(10)	RID	8.0	7.5									
by Trident's RMBK			7	2	(18)	RID	4.3	4.0								WS	2.0
Division on Rhand	Cap	560				DC	5	5								WC	-2
standard date 2347.	AW	.4														R	1
Weapons were not		Mag				3RB	-10	-5	0								
exported from Rhand						MA	.2	.2	.3							IDb	(10)+3
before the Spectral						BA	70	65	60								
invasion.	SAB	1															
*LAR7 / Starforce	L	13/20	1	-21	(1)	RID	182	178	170	158	147					RC	1
	W	8.0	2	-10	(4)	RID	45	44	41	36	31					BRC	1
Lase Assault Rifle			3	-7	(6)	RID	30	29	26	22	18	3RB					
	RT	3	4	-4	(8)	RID	22	21	19	16	12						
	ROF	**V	5	-2	(10)	RID	18	17	15	11	8.2						
Standard Starmarine			6	0	(18)	RID	9.6	8.7	7.0	4.2	1.3						
weapon during the			7	2												WS	1.9
Dragoncrest & Seven	Cap	936	8	3		DC	2	2	2	2	2					WC	-1
World Wars. Out of	AW	.4	9	4												R	1+
production, it is		Mag	10	5		3RB	-14	-9	-4	0	3						
still in service						MA	.2	.2	.3	.5	.8					IDb	(10)+4
throughout known						BA	69	64	59	55	52					IDc	(4)
space.	SAB	1														IDs	(6)+2

Starguild Weapons

***LAR8 / Starforce**

Lase Assault Rifle

Standard Starforce lase rifle. Updated version of the LAR7, this is the standard weapon of Starmarine forces. Compact, lightweight, and efficient design.

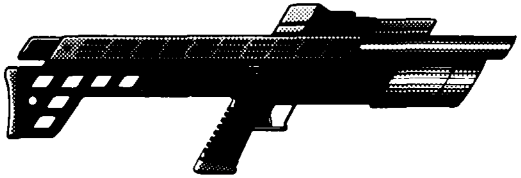


Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	13/20	1	-21	(1)	RID	182	178	170	158	147					RC	1
W	7.5	2	-10	(4)	RID	45	44	41	36	31					BRC	1
		3	-7	(6)	RID	30	29	26	22	18		3RB				
RT	3	4	-4	(8)	RID	22	21	19	16	12						
ROF	**V	5	-2	(10)	RID	18	17	15	11	8.2						
		6	0	(18)	RID	9.6	8.7	7.0	4.2	1.3						
		7	2												WS	1.9
Cap	1050	8	3		DC	2	2	2	2	2					WC	-1
AW	.4	9	4												R	1+
	Mag	10	5		3RB	-14	-9	-4	0	3						
					MA	.2	.2	.3	.5	.8					IDb	(10)+4
					BA	70	65	60	56	54					IDc	(4)
SAB	1														IDs	(6)+1

***LARGL8 / Starforce**

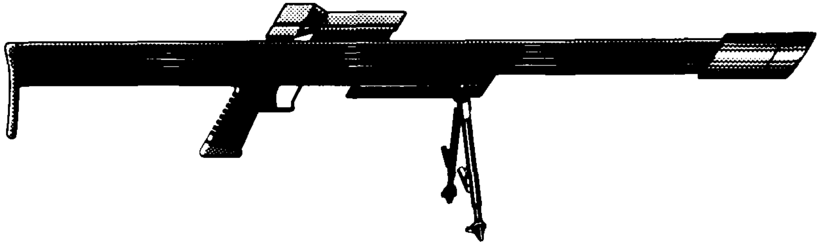
Lase Assault Rifle
30mm Grenade Launchr

Popular Starforce squad support weapon combining a LAR8 with a 30mm grenade launcher. Popular with MCPA units. See explosive weapons for grenade data.



Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	25	1	-24	(1)	RID	182	178	170	158	147					RC	1
W	13.1	2	-13	(4)	RID	45	44	41	36	31					BRC	1
		3	-8	(6)	RID	30	29	26	22	18		3RB				
RT	3	4	-5	(8)	RID	22	21	19	16	12						
ROF	**V	5	-2	(10)	RID	18	17	15	11	8.2						
		6	-1	(18)	RID	9.6	8.7	7.0	4.2	1.3						
		7	1												WS	1.7
Cap	1050	8	2		DC	2	2	2	2	2					WC	-2
AW	.4	9	4												R	2
	Mag	10	5		3RB	-14	-9	-4	0	3						
					MA	.2	.2	.3	.5	.8					IDb	(12)+5
					BA	70	65	60	56	54					IDc	(6)+2
SAB	1														IDs	(6)+3

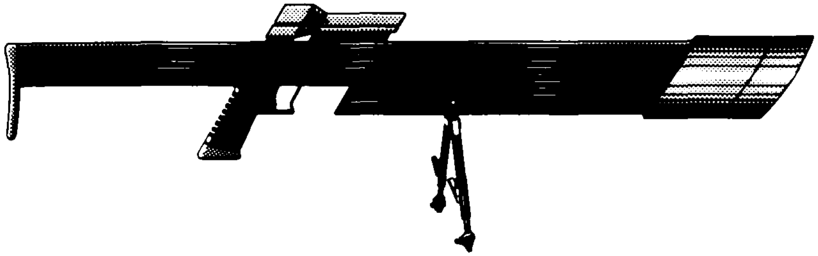
***LMG8L / Light Lase Machine Gun / Starforce**



Standard Starforce light lase machine gun issued at squad level.

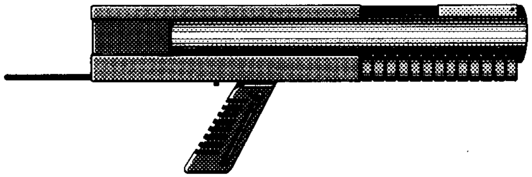
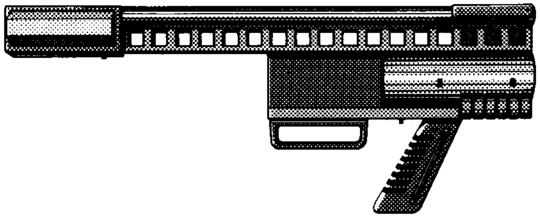
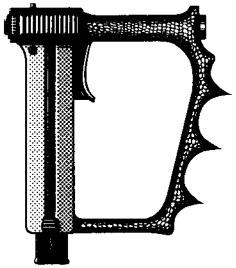
Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-23	(1)	RID	757	742	712	670	632	102				RC	1
W	12.0	2	-12	(4)	RID	189	184	176	164	152					BRC	1
		3	-8	(6)	RID	126	123	117	108	99			3RB			
RT	4	4	-5	(8)	RID	94	92	87	80	73						
ROF	**V	5	-2	(10)	RID	75	73	69	63	57						
		6	-1	(18)	RID	41	40	37	33	28						
		7	1												WS	1.7
Cap	221	8	2		DC	2	2	2	2	2	6				WC	-2
AW	.4	9	4												R	2+
	Mag	10	5		3RB	-14	-9	-4	0	3	8					
					MA	.2	.2	.3	.5	.8	2				IDb	(12)+4
					BA	70	65	60	56	54	49				IDc	(6)+3
SAB	1														IDs	(6)+3

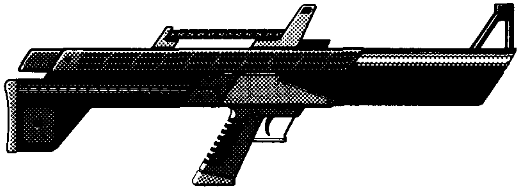
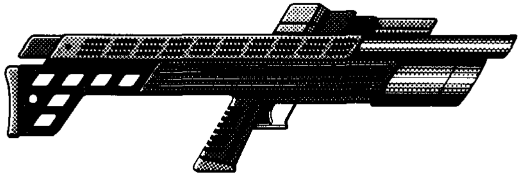
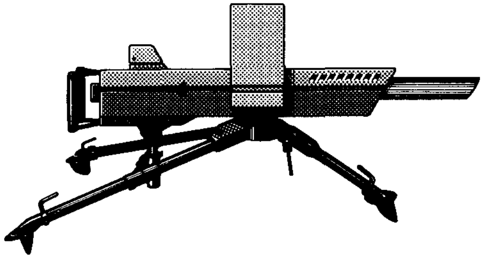
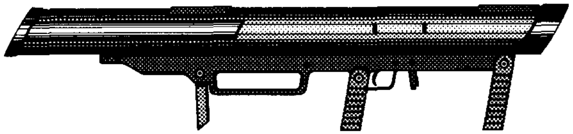
***LMG8H / Heavy Lase Machine Gun / Starforce**

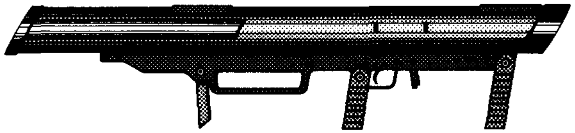
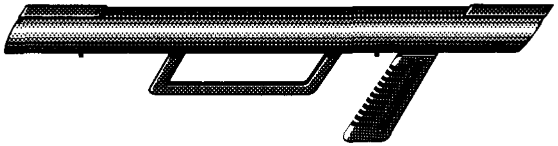
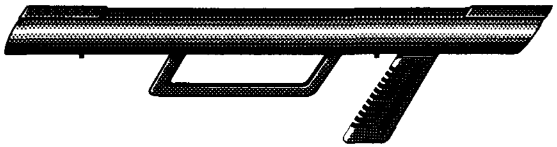
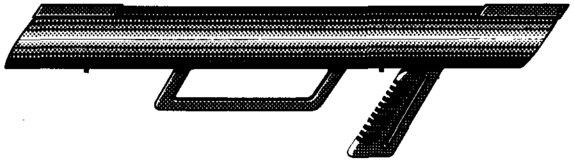


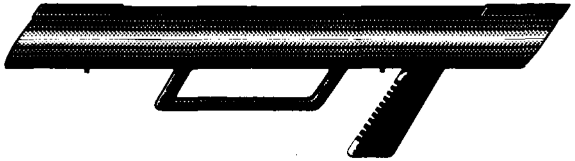
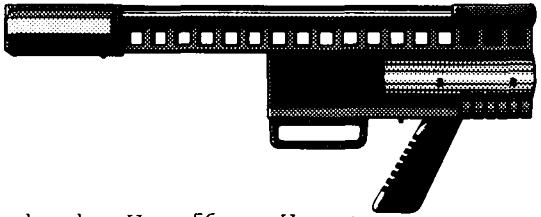
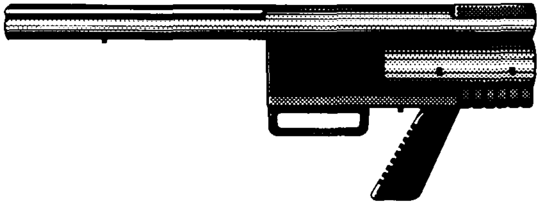
Standard Starforce heavy lase machine gun.

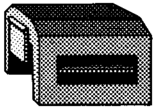
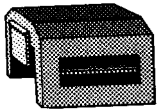
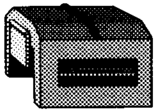
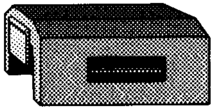
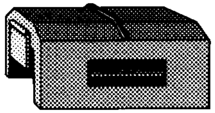
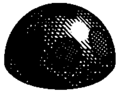
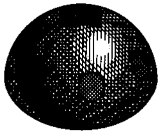
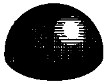
Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		10	20	40	70	100	200	300	400	600	Optional Data	
L	42	1	-26	(1)	RID	966	946	909	856	808	667	246			RC	1
W	18.8	2	-15	(4)	RID	241	236	225	210	196	154	18			BRC	1
		3	-9	(6)	RID	160	157	149	139	129	97		3RB			
RT	4	4	-5	(8)	RID	120	117	111	103	95	68					
ROF	**V	5	-3	(10)	RID	96	94	89	81	74	51					
		6	-2	(18)	RID	53	51	48	43	38	21					
		7	1												WS	1.6
Cap	170	8	2		DC	2	2	2	2	2	2	4			WC	-3
AW	.4	9	3												R	2+
	Mag	10	4		3RB	-14	-9	-4	0	3	8	11				
		11	6		MA	.2	.2	.3	.5	.8	2	2			IDb	(14)+6
		12	7		BA	70	65	60	56	54	49	46			IDc	(10)+4
SAB	1														IDs	(8)+3

Non-Starguild Weapons	Physical Data	Aim Time AC	Aim Time Mod	Ballistic Data		Target Range In 2 Yard hexes									Optional Data
						10	20	40	70	100	200	300	400	600	
*7SL8 / Seven Sword 	L 23/27	1	-28	(1)	RID	18H	17H	17H	16H	15H	313				RC 1
	W 84	2	-17	(4)	RID	440	431	413	388	364	35				BRC 1
Lase Cannon		3	-11	(6)	RID	293	287	274	257	240	3.8		3RB		
	RT 3	4	-6	(8)	RID	220	215	205	192	179					
Backpack W = 57	ROF **V	5	-3	(10)	RID	176	172	164	152	141					
PF = 100		6	-2	(18)	RID	97	95	90	82	75					
		7	0												
Weapon W = 27	Cap 2250	8	1		DC	2	2	2	2	2	6				
PF = 100	AW 15.0	9	3												
	Pck	10	4		3RB	-14	-9	-4	0	3	8				
Battlepack lase		11	6		MA	.2	.2	.3	.5	.8	2				
cannon with multiple					BA	70	65	60	56	54	49				
power settings.	SAB 1														
*7SLR8 / Seven Sword 	L 28	1	-29	(1)	RID	734	719	690	649	612	97				RC 1
	W 84	2	-18	(4)	RID	183	179	171	159	147					BRC 1
Lase & Rocket Rifle		3	-11	(6)	RID	122	119	113	104	96			3RB		
	RT 3	4	-6	(8)	RID	91	89	84	77	70					
Backpack W = 56	ROF **V	5	-3	(10)	RID	73	71	67	61	55					
PF = 100		6	-2	(18)	RID	40	39	36	32	27					
		7	0												
Weapon W = 28	Cap 2440	8	1		DC	2	2	2	2	2	6				
PF = 100	AW 5.0	9	3												
	Pck	10	4		3RB	-14	-9	-4	0	3	8				
Twin Battlepack with		11	6		MA	.2	.2	.3	.5	.8	2				
lase cannon and 15mm					BA	70	65	60	56	54	49				
rocket rifle.	SAB 1														
*7SFP-AP / Flechette Pistol Aux Pack / Seven Sword	L 10	1	-18	FMJ	RID	40	38	34	28	24	14	7.6	4.3	1.4	RC 1
	W 4.2	2	-10		DC	5	5	4	4	3	3	2	1	1	BRC 8
Total System PF = Variable with Power Armor Class		3	-8												
Weapon PF = 8	RT 15	4	-6	JHP	RID	39	36	32	27	23	13	7.3	4.1	1.3	CJT 1
	ROF **8	5	-4		DC	7	7	6	6	6	4	3	2	1	%CJ 90
This Flechette Pistol/Armor Panel may be mounted to the outer		6	-3												
forearm of Seven Sword Power Armor. This Auxiliary Pack takes				AP	RID	113	107	95	80	68	38	21	12	3.8	
the place of the normal armor panel and arms the user with a	Cap 36				DC	4	4	4	4	3	2	2	1	1	
quick action pistol. It is normally mounted on the users off-	AW .71														
hand and must be manually reloaded. Its magazine is specific	Mag				3RB	-4	1	6	10	13	17	20	22	25	
to Seven Sword Power Armor. The system includes its own gun					MA	.2	.2	.3	.7	1	2	3	4	6	
camera. The weight given is the weight added over that of the					BA	32	25	18	11	7	-2	-8	-11	-16	
standard armor panel mounted in that location.	SAB 1				TOF	0	0	1	1	1	3	6	8	13	
X7MP1 / Spectral 	L 5	1	-18	Exp	RID	2.0	1.9	1.6	1.2	.9					RC 2
	W 1.8	2	-11		DC	3	3	2	2	1					BRC *2
7.3mm Sub-Machinegun		3	-10												
	RT 4	4	-9												CJT 4
Compact sub-machinegun	ROF *10														%CJ 90
dispersed by Spectral															
forces on Rhand. It															WS 2.5
will kill unarmored	Cap 60														WC 0
targets but cannot harm	AW .52														R 1
Spectral Warriors.	Mag														
This weapon has a low					MA	.2	.4	.9	2	2					IDb (6)+2
muzzle velocity and					BA	49	43	35	28	23					
limited penetration.	SAB 2				TOF	0	1	2	3	5					

Explosive Weapons	Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Range 2 Yard hexes					Shrapnel Data	Target Range From Burst in 2 Yard hexes										
							40	100	200	400	600		C	0	1	2	3	4	5	6	8	12	20
SMPGL8 / SMP - 30mm Grenade Launcher	L	25	1	-24	HEAT	RID	16H	16H	16H			RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	10.4	2	-14		DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
	RT	8	3	-9								BSHC	*78	*1	26	6	2	1	0	-1	-3		
	ROF	*	4	-7								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-6																			
	Cap	5	6	-4																			
	AW	2.3			HE	RID	5.1	5.1	5.1			RID	5.1	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
		Mag				DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
												BSHC	*2H	*3	73	17	7	4	2	1	0		
	SAB	8										BC	33H	280	82	26	13	8	6	4	3	1	1
	RC	1				AOI		1	4														
	CJT	8				BA	27	15	5														
Landcaste slivergun & 30mm grenade launcher.	%CJ	90				TOF	11	31	75														
*LARGL8 / LAR - 30mm Grenade Launcher	L	25	1	-24	HEAT	RID	16H	16H	16H			RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	13.1	2	-13		DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
	RT	8	3	-8								BSHC	*78	*1	26	6	2	1	0	-1	-3		
	ROF	*	4	-5								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-2																			
	Cap	5	6	-1																			
	AW	2.3	7	1	HE	RID	5.1	5.1	5.1			RID	5.1	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
		Mag	8	2		DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
			9	4								BSHC	*2H	*3	73	17	7	4	2	1	0		
	SAB	7	10	5								BC	33H	280	82	26	13	8	6	4	3	1	1
	RC	1				AOI		1	4														
	CJT	8				BA	27	15	5														
Starforce laserifle & 30mm grenade launcher.	%CJ	90				TOF	11	31	75														
*GLB8A / 30mm Grenade Battery / Starforce	L	32	1	-32	HEAT	RID	16H	16H	16H			RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	49.7	2	-21		DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
	RT	10	3	-16								BSHC	*78	*1	26	6	2	1	0	-1	-3		
	ROF	*4	4	-9								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-5																			
	Cap	54	6	-3																			
	AW	25.0	7	-1	HE	RID	5.1	5.1	5.1			RID	5.1	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
		Mag	8	0		DC	10	10	10			DC	10	1	1	1	1	1	1	1	1		
	SAB	2	9	2								BSHC	*2H	*3	73	17	7	4	2	1	0		
	RC	1	10	3		AOI		1	4			BC	33H	280	82	26	13	8	6	4	3	1	1
	BRC	4	11	5		MA	.6	2	3														
	CJT	6	12	6		BA	27	15	5														
Tripod mounted automatic grenade launcher.	%CJ	80				TOF	11	31	75														
*RL8A / 70mm Rocket Launcher / Starforce	L	42	1	-22	HEAT	RID	51H	51H	51H	51H	51H	RID	51H	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	W	9.3	2	-10		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
			3	-7								BSHC	*3H	*4	88	21	9	5	3	1	0		
	RT	22	4	-4								BC	57K	20H	390	104	52	32	22	16	10	5	2
			5	-2																			
			6	-1																			
	Cap	1	7	1	HE	RID	15	15	15	15	15	RID	15	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	AW	3.1	8	2		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
		Rnd	9	4								BSHC	*2K	*27	*7	*2	73	41	26	17	9		
			10	5								BC	72K	24H	448	116	57	35	24	18	11	6	3
	RC	1	11	7																			
	CJT	22				BA	24	12	2	-7	-13												
Shoulder mounted anti-tank rocket launcher.	%CJ	90				TOF	2	6	14	31	52												

Explosive Weapons	Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data	Range 2 Yard hexes	40	100	200	400	600	Shrapnel Data Target Range From Burst in 2 Yard hexes	C	0	1	2	3	4	5	6	8	12	20
*RPG8A / 80mm RPG / Starforce	L	42	1	-22	HEAT	RID	62H	62H	62H	62H	62H	RID	62H	16	16	15	14	13	13	12	11	8.9	5.8
	W	9.6	2	-10		DC	10	10	10	10	10	DC	10	9	9	9	9	9	9	9	8	8	7
			3	-7								BSHC	*6	7	1	-2	-5	-7	-9	-10	-12	-15	-19
	RT	20	4	-4								BC	88K	28H	508	129	63	39	27	20	12	6	3
			5	-2																			
			6	-1																			
	Cap	1	7	1	HE	RID	14	13	11	8.4	7.4	RID	V	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	AW	3.4	8	2		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
		Rnd	9	4								BSHC	*2K	*27	*7	*2	73	41	26	17	9		
			10	5								BC	12T	37H	622	151	73	45	31	23	14	7	3
	RC	1																					
	CJT	20				BA	23	11	1	-8	-14												
Rocket Propelled Grenade Launcher.	%CJ	90				TOF	2	7	14	33	54												
*BP-GL / 30mm Grenade Battlepack / Starforce	L	28	1	-24	HEAT	RID	16H	16H	16H	16H	16H	RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	90	2	-13		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
	RT	10	3	-8								BSHC	*78	*1	26	6	2	1	0	-1	-3		
	ROF	*	4	-5								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-2																			
	Cap	5	6	-1																			
	AW	.25	7	1	HE	RID	6.4	5.8	5.3	5.3	5.3	RID	V	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
		Rnd	8	2		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
			9	4								BSHC	*2H	*3	73	17	7	4	2	1	0		
	SAB	2	10	5								BC	33H	280	82	26	13	8	6	4	3	1	1
Backpack W = 76 Weapon	RC	1				AOI				1	2												
Cap = 164 W = 14	CJT	10				BA	31	18	8	-1	-5												
PF = 21 PF = 21	%CJ	90				TOF	3	9	22	52	87												
*BP-RR / 45mm Rocket Rifle BP / Starforce	L	28	1	-25	HEAT	RID	28H	28H	28H	28H	28H	RID	28H	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	W	93	2	-14		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
			3	-8								BSHC	*2H	*3	62	15	6	3	2	1	0		
	RT	8	4	-5								BC	13K	696	174	52	26	16	11	9	5	3	1
			5	-3																			
			6	-1																			
	Cap	1	7	1	HE	RID	11	11	11	11	11	RID	11	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	AW	1.2	8	2		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
		Rnd	9	4								BSHC	*6H	*9	*2	54	24	13	8	5	2		
			10	5								BC	16K	788	192	57	29	18	12	9	6	3	1
Backpack W = 78 Weapon	RC	1	11	6																			
Cap = 29 W = 15	CJT	8	12	7		BA	25	13	3	-6	-12												
PF = 21 PF = 21	%CJ	90				TOF	1	3	5	12	20												
*BP-RL / 70mm Rocket Launcher BP / Starforce	L	28	1	-27	HEAT	RID	51H	51H	51H	51H	51H	RID	51H	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	W	100	2	-16		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
			3	-9								BSHC	*3H	*4	88	21	9	5	3	1	0		
	RT	10	4	-6								BC	57K	20H	390	104	52	32	22	16	10	5	2
			5	-3																			
			6	-2																			
	Cap	1	7	0	HE	RID	15	15	15	15	15	RID	15	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	AW	3.1	8	1		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
		Rnd	9	3								BSHC	*2K	*27	*7	*2	73	41	26	17	9		
			10	4								BC	72K	24H	448	116	57	35	24	18	11	6	3
Backpack W = 88 Weapon	RC	1	11	6																			
Cap = 10 W = 22	CJT	10	12	7		BA	24	12	2	-7	-13												
PF = 21 PF = 21	%CJ	90				TOF	2	6	14	31	52												

Explosive Weapons	Physical Data		Aim Time AC	Aim Time Mod	Ballistic Data		Range 2 Yard hexes					Shrapnel Data	Target Range From Burst in 2 Yard hexes										
							40	100	200	400	600		C	0	1	2	3	4	5	6	8	12	20
*BP-RPG / 80mm RPG Battlepack / Starforce	L	28	1	-27	HEAT	RID	62H	62H	62H	62H	62H	RID	62H	16	16	15	14	13	13	12	11	8.9	5.8
	W	99	2	-16		DC	10	10	10	10	10	DC	10	9	9	9	9	9	9	9	8	8	7
			3	-9								BSHC	*6	7	1	-2	-5	-7	-9	-10	-12	-15	-19
	RT	10	4	-6								BC	88K	28H	508	129	63	39	27	20	12	6	3
			5	-3																			
			6	-2																			
	Cap	1	7	1	HE	RID	14	13	11	8.4	7.4	RID	V	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
	AW	3.4	8	2		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
		Rnd	9	4								BSHC	*2K	*27	*7	*2	73	41	26	17	9		
			10	5								BC	12T	37H	622	151	73	45	31	23	14	7	3
Backpack W = 76 Weapon	RC	1																					
Cap = 8 W = 23	CJT	10				BA	23	11	1	-8	-14												
PF = 21 PF = 21	%CJ	90				TOF	2	7	14	33	54												
*7SLR8 / 15mm Rocket Rifle BP / Seven Sword	L	28	1	-29	HEAT	RID	148	148	148	148	148	RID	148	.8	.7	.4							
	W	84	2	-18		DC	10	10	10	10	10	DC	10	1	1	1							
	RT	8	3	-11								BSHC	*13	18	4	0							
	ROF	*	4	-6								BC	521	74	24	8	4	2	2	1	1		
			5	-3																			
	Cap	5	6	-2																			
	AW	.17	7	0	HE	RID	3.7	3.7	3.7	3.7	3.7	RID	3.7	1.3	1.1	.8	.5	.4					
		Rnd	8	1		DC	10	10	10	10	10	DC	10	1	1	1	1	1					
			9	3								BSHC	*13	18	4	0	-2	-4					
	SAB	1	10	4								BC	808	105	33	11	6	3	2	2	1	1	
Backpack W = 56 Weapon	RC	1	11	6																			
Cap = 46 W = 28	CJT	1				BA	35	26	18	10	5												
PF = 100 PF = 100	%CJ	90				TOF	1	3	5	12	19												
*7SLG8 / 30mm Grenade Battlepack / Starforce	L	28	1	-29	HEAT	RID	16H	16H	16H	16H	16H	RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	85	2	-18		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
	RT	8	3	-11								BSHC	*78	*1	26	6	2	1	0	-1	-3		
	ROF	*	4	-6								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-3																			
	Cap	5	6	-2																			
	AW	.25	7	0	HE	RID	6.4	5.8	5.3	5.3	5.3	RID	V	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
		Rnd	8	1		DC	10	10	10	10	10	DC	10	1	1	1	1	1	1	1	1		
			9	3								BSHC	*2H	*3	73	17	7	4	2	1	0		
	SAB	1	10	4								BC	33H	280	82	26	13	8	6	4	3	1	1
Backpack W = 56 Weapon	RC	1	11	6		AOI				1	2												
Cap = 30 W = 29	CJT	10				BA	31	18	8	-1	-5												
PF = 100 PF = 100	%CJ	90				TOF	3	9	22	52	87												
*7SGP-AP / 30mm Grenade AP / Seven Sword	L	10	1	-18	HEAT	RID	16H	16H				RID	16H	4.6	4.3	3.7	3.1	2.7	2.3	2.0	1.5		
	W	4.5	2	-10		DC	10	10				DC	10	1	1	1	1	1	1	1	1		
Total System PF = Variable with Suit	RT	10	3	-8								BSHC	*78	*1	26	6	2	1	0	-1	-3		
Weapon PF = 8	ROF	*	4	-6								BC	33H	280	82	26	13	8	6	4	3	1	1
			5	-4																			
This 30mm Grenade Launcher is mounted in	Cap	2	6	-3																			
the outer forearm armor panel of Seven Sword	AW	.6			HE	RID	5.1	5.1				RID	5.1	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.5		
Power Armor. It fires standard low velocity		Mag				DC	10	10				DC	10	1	1	1	1	1	1	1	1		
30mm grenades and must be manually reloaded.												BSHC	*2H	*3	73	17	7	4	2	1	0		
The unit has its own gun camera. The weight	SAB	2										BC	33H	280	82	26	13	8	6	4	3	1	1
entry gives the additional weight associated	RC	1				AOI		1															
with adding this system to the suit's normal	CJT	4				BA	25	13															
armor panel.	%CJ	90				TOF	15	42															

Grenades/Explosives		Physical Data		Shrapnel Data	Target Range From Burst In 2 Yard hexes																								
					C	0	1	2	3	4	5	6	7	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38
G-F8A		Length	1.5	RID	1.9	1.7	1.5																						
		Weight	.3	DC	10	1	1																						
Light		Arm Time	4	BSHC	*2H	*3	73																						
Starfleet		Fuse	I	BC	386	58	18	6	3	2	1	1	1	1															
Grenade		Range	30																										
G-F8B		Length	1.5	RID	4.8	4.6	4.2	3.6	3.1	2.7	2.3	2.0	1.7	1.4															
		Weight	.4	DC	10	1	1	1	1	1	1	1	1	1															
Light		Arm Time	4	BSHC	*2H	*3	73	17	7	4	2	1	1	0															
Frag		Fuse	I	BC	14H	155	48	15	8	5	3	3	2	2	1	1	1	1											
Grenade		Range	25																										
G-B8B		Length	1.5	RID	1.6																								
		Weight	.3	DC	10																								
Light		Arm Time	4																										
Blast		Fuse	I	BC	16H	173	53	17	9	5	4	3	2	2	1	1	1	1											
Grenade		Range	28																										
G-F8C		Length	2.5	RID	4.9	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.7	1.5	1.1														
		Weight	.6	DC	10	1	1	1	1	1	1	1	1	1	1														
Heavy		Arm Time	4	BSHC	*6H	*9	*2	54	24	13	8	5	4	2	1														
Frag		Fuse	I	BC	61H	417	115	35	18	11	8	6	5	4	3	2	1	1	1	1	1	1	1						
Grenade		Range	19																										
G-B8C		Length	2.5	RID	2.9																								
		Weight	.4	DC	10																								
Heavy		Arm Time	4																										
Blast		Fuse	I	BC	83H	513	136	42	21	13	9	7	5	4	3	2	2	1	1	1	1	1	1	1	1				
Grenade		Range	23																										
MGL-G8A		Length	10/15	RID	4.8	4.6	4.2	3.6	3.1	2.7	2.3	2.0	1.7	1.4															
		Weight	2.8	DC	10	1	1	1	1	1	1	1	1	1															
Multiple		Arm Time	12	BSHC	*1H	*1	35	8	3	1	0	0	-1	-2															
Grenade		Fuse	I	BC	14H	155	48	15	8	5	3	3	2	2	1	1	1	1											
Launcher		Range	70																										
M-CBU8B		Length	7.0	RID	4.8	4.6	4.2	3.6	3.1	2.7	2.3	2.0	1.7	1.4															
		Weight	4.5	DC	10	1	1	1	1	1	1	1	1	1															
Light		Arm Time	8	BSHC	*2H	*3	73	17	7	4	2	1	1	0															
Cluster		Fuse	V	BC	14H	155	48	15	8	5	3	3	2	2	1	1	1	1											
Mine		Range	5																										
M-CBU8C		Length	9.5	RID	4.9	4.7	4.3	3.7	3.2	2.7	2.3	2.0	1.7	1.5	1.1														
		Weight	6.0	DC	10	1	1	1	1	1	1	1	1	1	1														
Heavy		Arm Time	8	BSHC	*6H	*9	*2	54	24	13	8	5	4	2	1														
Cluster		Fuse	V	BC	61H	417	115	35	18	11	8	6	5	4	3	2	1	1	1	1	1	1	1						
Mine		Range	4																										
M-F8B		Length	7.0	RID	112	112	112	111	110	110	109	108	107	107	105	104	103	101	100	99	97	96	95	94	92	91	90	89	88
		Weight	13.6	DC	10	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
		Arm Time	8	BSHC	*90	*1	31	7	3	1	0	0	-2	-3	-4	-5	-7	-7	-8	-9	-10	-10	-11	-11	-12	-12	-13	-13	-14
Flechette		Fuse	V																										
Mine		Range	4																										

High-Tech
Weapon Data Supplement

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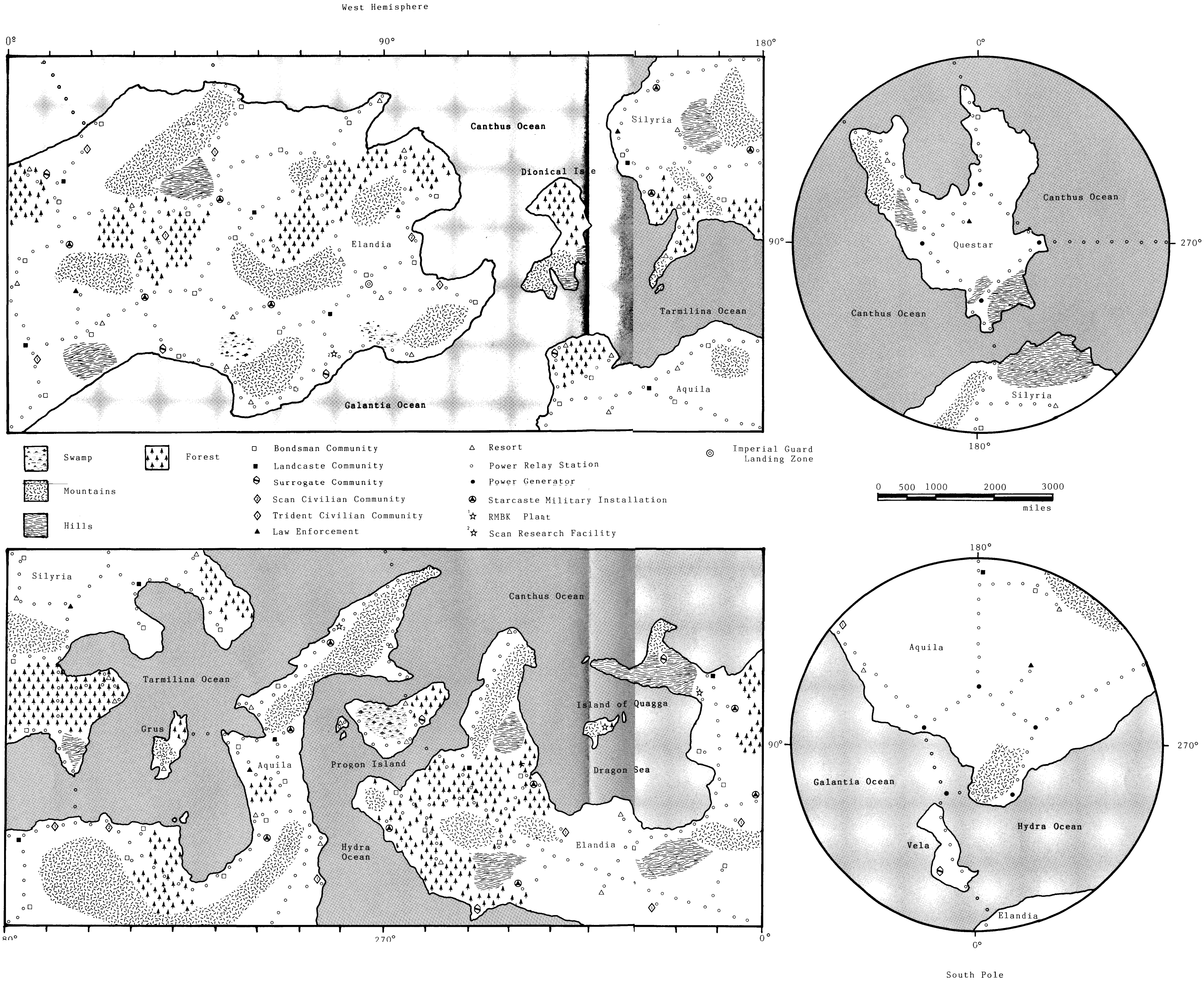
West Hemisphere
0°
90°
180°
Canthus Ocean
Dionical Isle
Elandia
Galantia Ocean
Silyria
Tarmilina Ocean
Aquila
Questar
Canthus Ocean
Canthus Ocean
Silyria
0°
90°
270°
180°
Swamp
Forest
Mountains
Hills
Bondsman Community
Landcaste Community
Surrogate Community
Scan Civilian Community
Trident Civilian Community
Law Enforcement
Resort
Power Relay Station
Power Generator
Starcaste Military Installation
RMBK Plant
Scan Research Facility
Imperial Guard Landing Zone
0
500
1000
2000
3000
miles
Silyria
Tarmilina Ocean
Grus
Aquila
Progon Island
Hydra Ocean
Canthus Ocean
Island of Quagga
Dragon Sea
Elandia
180°
270°
0°
Aquila
Galantia Ocean
Hydra Ocean
Vela
Elandia
180°
90°
270°
0°
South Pole

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Name:

Age:

Special:

Exceptional Merit:

Characteristics

Strength	STR
Intelligence	INT
Will	WIL
Health	HLT
Agility	AGI
Charisma	CHR
Leadership	LDR
Motivation	MOT
Size	SIZE
Teaching	TCH
Telep. Sens.	TS
Base Speed	
Maximum Speed	MS
INT Skill Factor	ISF
Combat Actions	CA
Knockout Value	KV
Learning Roll	LR

Physical Status

PD Total

DT
CTP
Med. Aid
RR
HT

Knockout Table

PD Total	Odds
Under KV ÷ 10	00
Over KV ÷ 10	10
Over KV	25
Over 2 × KV	75
Over 3 × KV	98

Action Time Table

1	*Move Forward one hex
3	*Move Backward one hex
2	*Assume a Firing Stance Over / Around Cover
1	*Assume a Hip Firing Stance Over / Around Cover
1	*Look Over / Around Cover
2	*Toss a Grenade
1	Duck from Firing Stance / from Looking
1	60 Degree Facing Change

Weapon	Physical Data	Aim Time AC	Aim Time ALM	Ballistic Data Range in 2 Yard hexes 10	20	40	70	100	200	400
	L	1								
	W	2								
		3								
	RT	4								
	ROF	5								
		6								
	Cap	7								
	AW	8								
		9								
		10								
		11								
		12								
	SAB			MA						

Equipment

Armor	PF	Weight

Combat Equipment

Encumbrance =

Noncombat Equipment

General Skills

General Skills	LPT	SL
Skill Type A		
1 Gun Combat		
Skill Type B		
2 Balance/Footwork		
3 Fall Recovery		
4 Hand-Hand Combat		
5 Unarmed H-H Combat		
Skill Type C		
6 Climbing		
7 Scouting		
8 Survival Skills		
9 Traps/Spotting		
Skill Type D		
10 Demolitions		
11 Espionage		
12 Infiltration		
Skill Type E		
13 Con/Acting		
14 Diplomacy		
15 Perception		
Skill Type F		
16 Driving		
Skill Type G		
17 Medical Aid		
Qualified Skills		
Lase Weapons		
Explosive Weapons		
Heavy Weapons		
Power Armor		
Grav Vehicles		

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